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ABSTRACT

This monograph contains two studies that investigated adult learning as it occurred within specific communities. "The Formation of Literacy Perspective" (Linda Ziegahn) examines the perspective toward literacy that was developed by 27 Montana adults experiencing reading and writing difficulties, 15 of whom were Native Americans. Four sections explore various dimensions of the self affecting literacy perspective; examine respondents' relationships with friends and relatives around literacy; describe elements of the community context respondents considered important to literacy perceptions and decisions; and forge a theory of literacy perspective as a result of the interaction between psychological and social contexts and the response of low-literate adults. "Lifelong Learning in Livingston, Montana" (John Shirk) investigates resources used in adult learning projects and the economic impact such learning activities had on an economically disadvantaged community. Interviews with 60 respondents produced the following findings: learning activity costs totaled as much as $2,000 per year, with the average learner spending at least $500 per year; economic benefits to learners included promotions, new responsibilities, and investment returns; and noneconomic gains to learners included improvement in interpersonal skills. (YLB)

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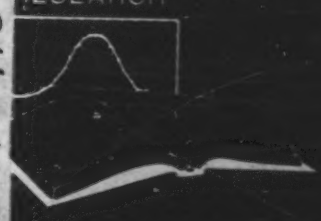

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Adult Learning In The Community

Papers Developed
By Postdoctoral Fellows
At The Center For Adult Learning Research

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Foreword

Decades ago Kurt Lewin laid down an essential principle for those researching human learning and behavior when he wrote, "The calculation of an average is designed to eliminate the 'accidents' of the environment.... But the very relation that is decisive for the investigation of dynamics--namely, that of the position of the actual individual child in the actual, concrete, total situation--is thereby abstracted" (*A Dynamic Theory of Personality*, p. 68). Lewin went on to point out that just as there is no "average" child, so there is no useful way of projecting statistically to "average" behavior in complex, dynamic situations. General propositions can only be derived by looking at total situations.

Researchers on adult learning could profit by reflecting on this caution of Lewin's. We are tempted to speak of principles of adult learning, to generalize to methods of instruction suited to all, to simplify this complex construct called learning. Yet we have great difficulty in coming up with "a theory of adult learning." Perhaps this is due not to the still developing nature of the field, as some would suggest, but to the complexity of the learning act especially as experience by adults in the reality of daily life.

This monograph contains two studies that investigated adult learning as it occurred within specific communities. One examined the perspective toward literacy that was developed by adults experiencing reading and writing difficulties. The other sought to discover what resources were used in adult learning projects and what economic impact such learning activities had on a community. Both employed naturalistic approaches in attempts to discover realities of learning; neither proports to generalize to the average adult in the typical community. Yet both provide valuable insights into adult learning.

Linda Ziegahn is presently Assistant Professor of Adult Education at Syracuse University. Her program of study had emphasized community development, and she had spent several years in Africa working in literacy programs in developing countries before coming to Montana State University. Her Kellogg postdoctoral fellowship at the Center for Adult Learning Research provided an opportunity for her to pursue her interest in literacy education by developing, through the insights and words of low-level literate adults, a perspective on literacy. This perspective should prove useful not only to those working directly in literacy programs but to all those trying to gain insight into adult learning.

John Shirk has been the Director of the Library at North Central Bible College in Minneapolis for the past several years. He used his Kellogg postdoctoral fellowship to pursue a line of study that has intrigued John for several years. As a professional librarian he has been particularly interested in resources used for learning. Using the indirect approach of getting adults to describe first their recent learning projects and then questioning them about the resources used in such projects has provided him with useful insights into the use of libraries as well as other resources for learning. His particular question in this study centered on the economic impact of adult learning projects within a community.

While each of these studies provides unique insights into adult learning, neither presumes to furnish final answers. Linda helps us see that we educators cannot presume that our views of learners and of their needs coincide with the learners' perspectives. Many, many things within the lives of the learners affect their learning processes and motives. John raises questions about resource use, the learning-how-to-learn process, and the invisible networks of learning in communities. Perhaps more intriguingly, he opens the whole question of the economic impact of learning on a community. Apparently, learning not only develops the individual and promotes growth within the community; it actually in itself contributes hundreds of dollars per learner to the economy.

As Kurt Lewin said, learning is a dynamic enterprise. Looking at the actual individual learner in the real, concrete, total situation can stimulate an appreciation for this wonderful human experience called learning.

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The Formation of Literacy Perspective

Linda Ziegahn

INTRODUCTION

> ...all normal individuals can learn to read and write, provided they have a setting or context in which there is a need to be literate, and they are exposed to literacy, and they get some help from those who are already literate. (Heath, 1980, p. 130)

The literacy "crisis" is in many respects a recent and misguided concern (Coe, 1986; de Castell & Luke, 1986; Fingeret, 1982; Graff, 1979; Smith, 1989). As the mandate of public schools to educate youth in the United States grew, so did the division between those who had attended schools and who had consequently learned to read and write, and those who had not. In this century, the stigma against those deemed illiterate has grown to disturbing proportions: a person's inability to read and write is often attributed to low intelligence or linked with deviant behaviors; remedies for the illiterate conditions are launched through mass campaigns laced with missionary fervor. Lost in the rhetoric over the horrors of illiteracy is the perspective of the individual. Is the knowledge and practice of reading and writing-what I am calling literacy--of interest to people whom society would deem either illiterate or, given at least some reading and writing skills, low-literate? Given all the concerns and responsibilities of adult life, where does literacy fit in? We know literacy is valued by the highly literate, as evidenced by the energy directed toward state, federal, and privately-funded literacy programs directed at either individuals or groups. But we know little about the values and priority placed on literacy by those with few, if any literacy skills. The purpose of the study reported in this monograph is to better understand the perspective of low-literate adults on the role of literacy in their lives.

While low-literacy is perhaps an unfortunate term, it is meant to describe a continuum ranging from illiteracy to the ability to "read printed materials encountered in...daily (life) and on occasion produce written message as part of the total pattern of communication in the community" (Heath, 1986, p. 220). An individual's personal view of literacy, in terms of challenge or dilemma, immediate need or irrelevant issue, determines response. It is important to know how low literate adults relate to insufficient reading and writing skills simply because adult educators have invested much time, energy, and money in programs that purport to respond to the ambiguous condition of low-literacy. If we are to be truly receptive to learners, we must learn more about their view of literacy and the forces that have shaped this perspective.

Recent Qualitative Studies on Adult Literacy

Several studies in education have examined the question of literacy from the learner's perspective in recent years. In adult education, Hanna Arlene Fingeret (1982) developed a model of functional competence which would (a) illuminate the role of reading and writing but not depend upon application of those skills, (b) examine illiteracy from a non-deficit perspective, (c) take into account the reality of contemporary American society, with its focus on technology and print, and (d) include the entire range of literate and illiterate people rather than only those at the bottom. Her study lead to a new understanding of the competencies viewed by illiterates as necessary to survive in today's world and of the social network around illiteracy. Specific competencies included the ability to (a) act as good parents, (b) procure resources from social control agencies, (c) control deviant behavior, (d) meet immediate and future economic needs, (e) identify learning needs and resources, (f) achieve physical mobility, and (g) use literacy as a means towards instrumental ends. The fact that literacy emerged as only one of many competencies suggests that educators should not assume low-literate adults cannot read or write at all or that they define themselves totally in terms of competence in literacy.

A ethnographic study of literacy was conducted by Shirley Brice Heath (1983), an anthropologist and linguist, in a cross-cultural setting in the rural South. Her examination of ways children and adults learn and use language was predicated on the belief that culture is learned behavior and language habits are part of shared learning. Two factors identified as critical in order for literacy practices to thrive in a community were the presence of a metalanguage, in

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I would like to gratefully acknowledge Sandi Martin Boham, Cathi Dupuis Shortman, and Betty White for their invaluable assistance in orienting me to the Flathead community. I would also thank the many people who took the time to share with me their views on literacy.

which children learn to "talk about talk", and textual communities, where groups of people discuss knowledge from written sources originating outside of the community. Without these, information from written materials is not incorporated into values or behavioral systems, and literacy plays a marginal function in everyday communication. Other of Heath's findings suggested that literacy be taught in homes and communities as well as in schools, so that parents do not feel alienated and inadequate about their own competencies. The traditional focus on "learning to read" should be reinforced by an equivalent stress on "reading to learn", in which out-of-school contexts for learning and using literacy are exploited more effectively in schools.

Researchers increasingly view literacy as embedded in the social context of communication (Bogdan, 1982; de Castell & Luke, 1986; de Castell, Luke & MacLennan, 1986; Fingeret, 1982; Graff, 1979; Heath, 1983, 1986; Smith, 1989). Their line of inquiry reacts against the technocratic model of literacy predominant in the 1950's and '60's which stressed the neutrality of literacy and taught reading and writing skills as discrete, testable subskills. As a result of this research, we now know more about the competencies adults see as critical for getting by in today's world, how institutional and social networks can assist learners in the acquisition and retention of literacy, and how reading and writing are used in everyday life by low-literate adults. A summary of their research on literacy context and assumptions about low-literate adults include the following:

1. Adults seek competence in life as well as respect. The fact that they have difficulty with basic reading and writing tasks does not make them deficient as people.
2. Literacy is one of many ways of getting by in today's world.
3. Literacy is an interactional process; when divorced from the social world, it does not flourish.
4. People learn to read when there is a need to do so, that is, when there is information worth knowing about or communicating and speech is not a sufficient vehicle.
5. It is difficult to separate literacy from schooling, both in terms of practices and feelings.
6. The context and usage of literacy in homes and communities are not considered valid in strict academic settings.

The next step for research is to explore further the role individual learners assign to literacy, given their view of competencies, their social networks and communication needs. What other factors are involved in the conceptualization of literacy in the minds of individuals who have been deemed as "low-literate" in our society?

Methodology

If we accept the premise that literacy can only be studied in the context of the social world, naturalistic inquiry is the obvious choice of a research methodology. Naturalistic inquiry makes several assumptions about conduct of research:

1. While the researcher starts with a focus, this focus may very well change as the study progresses.
2. Theory emerges from the inquiry, and is not established a priori.
3. Sampling is contingent and serial, aimed at maximizing the scope and range of information obtained.
4. No a priori questions or hypotheses can guide data-analysis decisions, but rather are made as inquiry proceeds. (Lincoln & Guba, 1985)

Upon entering the field, I focused on the individual's relationship to literacy. Initial questions centered on work, family, interests, school, learning, and reading and writing. The purpose of this broad approach was to let respondents identify patterns and relationships around literacy that were meaningful to them. As the study progressed, certain of these connections were probed further in interviews: the effect of learning disabilities on self-image, the connection between low-literacy skills and ability to communicate in work and home settings, and strategies used to supplement reading and writing. Conceptual categories emerging from interviews were compared throughout the study leading to identification of key factors influencing low-literates' literacy perspectives.

A common criticism of social science studies is that the sample is restricted to the most available subjects, usually members of the dominant culture. An important facet of this study was representation of more than one culture in the community in order to maximize information about literacy perspective.

Other guidelines for identification of a research site stemmed from Heath's (1986) description of "middle" literacy communities, in which (a) the form of language used in reading, writing, and speaking was considered nonstandard, (b) members' primary identification was local, (c) literacy skills were not linked to work habits, and (d) livelihood was not dependent upon modern technology. These "characteristics" of middle literacy communities were transformed into criteria for site selection, with the knowledge that they might not necessarily be valid for such purposes.

A series of talks with sociologists and

anthropologists in Montana along with visits to potential research communities led to the choice of a study community. Two of the five criteria--a community with two cultural groups and a non-technical mode of production--facilitated the identification of the Flathead reservation in western Montana. The other three criteria--nonstandard communication patterns, local self-identification, and literacy skills divorced from work habits--yielded findings on study questions but were not useful as standards for identification of a research community.

Native Americans comprise Montana's largest minority group, almost five percent. Thus it was logical that they be included in a cross-cultural study, along with the majority white population. Coupled with the cultural criteria was the general assumption behind "low literacy" groups: that the majority of members not be either illiterate (rare in the United States) or highly literate. This caveat ruled out larger population centers where universities, business and industry were likely to attract more educated groups.

The other geographic reality was that most Native Americans in Montana live on the state's seven reservations, suggesting a rural/urban split between the two populations. This meant that identifying an area where there was a chance of finding *both* Native Americans and non-natives who were not highly literate would be difficult. Talks with a rural sociologist led to the consideration of the small towns along the perimeters of reservations which were likely to have employers beyond official reservation offices.

Non-technical production in Montana centers around cattle and sheep ranching, mining, and logging. Ranching communities present obstacles for research: a "community" may comprise ranches across 2000 square miles, with distances of 25 miles between households being common. Mining or logging communities were more likely to be smaller in area.

Most of the reservation communities considered were ruled out because of the education criterion: While there was reason to believe that the literacy skills of many Native Americans fell into the vague category of "low literacy" (based on conversations with educators and a review of the limited statistical data on education in the reservations), many of the non-natives in reservation communities worked in either schools, the Indian Health Service or other tribal offices that required at least a high school diploma, and often a college degree.

The lack of an economic base in many reservation border communities also served as a deterrent to both Native and non-native populations outside the reservation service sector. The Flathead community finally selected could be characterized as follows:

- a mid-sized reservation, with a larger non-native than Native population (due to the opening up of reservation land to homesteading in 1910);
- possessive of a strong logging industry, as well as a variety of seasonal agricultural industries.

Because of the presence of a sizeable number of non-technical economic opportunities and a large population of non-natives, there was a strong chance of finding potential respondents with minimal literacy skills from both cultural groups.

Important in naturalistic studies is a sampling design which includes as much information as possible (Lincoln & Guba, 1985; Patton, 1990) and generates grounded theory (Glaser and Strauss, 1967). This precludes drawing the sample in advance; "it does not matter where the investigator begins in the sampling process...but successive units are selected in accord with the need to extend, test, and fill in information" (Lincoln & Guba, p. 201).

Entry into the research site commenced with interviews of "caretakers" (Fingeret, 1982) in the low-literate community, including teachers and administrators at the tribal community college, public school reading teachers and counselors. These were people who were familiar with the educational climate of the reservation and knew who in the community was likely to have low reading and writing abilities severe enough to warrant help on a regular basis or to prevent communication to the extent desired. Finding people with low literacy skills and verifying their suitability for study participation proved to be one of the greatest challenges of the study. Since most interaction around literacy issues took place outside of education programs, it was desirable that study participants not be currently involved in formal literacy study, such as tutoring programs or basic education classes.

In visits with caretaker contacts, I explained that I wanted to talk with individuals having persistent problems with reading and writing, necessitating assistance from others. I also explained to contacts the need to use their names as references so that the potential respondent would know who had suggested that he or she would be "a good person to talk to." Responses from educators to my request were mixed:

1. ABE instructors were unwilling to release any names of current students because of rules of confidentiality.
2. Reading teachers and counselors were willing to give names of either former students, now adults, who had been diagnosed as having read-

ing disabilities as children, or names of parents of current students who were known or suspected of having reading problems.

3. Some educators contacted passed on names of people they knew in the community who they considered to have problems with reading and writing. Others said they knew of such people, but were hesitant to give names.

4. Some wanted very much to help but didn't feel confident enough about the reading abilities of the people coming to mind to pass on their names.

A similar pattern of response followed from those caretakers in churches and social service agencies whose job it was to work with individuals defined by society as needing help, and workers in the tribal cultural organizations on the reservation. Some were willing to help, and had information on the last grade level completed by their clients but were prevented by rules of confidentiality from releasing names. Others were understandably concerned that their low literate friends would be offended by any suggestion of reading and writing problems, despite my assurances that the study and interview would not be presented in terms of what people could not do, but rather in terms of their strengths and interests as learners.

While interviews with teachers and social service personnel were somewhat successful in leading to respondents, I decided that it would be wise to interview at least some of the most readily available population--learners in the two one-on-one tutor programs on the reservation. This strategy provided me with 10 of the total 27 respondents. In the long run, the best method for identifying study participants turned out to be conversations with whomever seemed the most interested in the topic of adult learning. These included community college employees, a research assistant from the reservation, two women who overheard my description of the study and identified themselves as potential respondents, and many people who I approached at the suggestion of the initial contact person. This seemingly casual approach resulted in a sample that reflected a community's impressions as to who had literacy problems. It became important, however, to ask contacts specifically why they believed the person recommended had problems with reading and writing. Several potential interviewees were not included in the study after I discovered that their difficulties with reading and writing were due to poor vision: One woman was rejected when preliminary interview questions revealed prior work as a computer technician, requiring highly literate behavior (her contact later stated she was "flaky", a condition she equated with illiteracy). Another woman overheard my conversation with a contact and asked to participate. The first interview revealed that her major "problem" was that she felt she read too slowly. She had no difficulty in understanding what she read, however, and could write with ease. These interviews, while time consuming, helped to establish the criteria for "persons with severe problems with literacy", meriting inclusion in the study.

The low-literate study participants themselves were a source of further respondents. Because the reservation is a tight-knit community, however, many of those suggested I had already heard about from other contacts, or those they suggested lived out of the study site, or they, like other contacts, were unaware of the extent of the person's reading ability.

Gender and ethnicity seemed to be the most important dimensions for a sample at the onset, thus roughly equal samples of men and women, Native Americans and non-natives were sought. The concurrent phases of data collection and analysis that characterize naturalistic studies led to the emergence of key themes, which in turn highlighted population priorities. For example, certain age categories proved more or less important: people over 60 interviewed had little to say about aspirations and sought fewer changes in their social networks around literacy than people under 60. Thus while this was worth knowing and could be considered as one extreme of maximum variation sampling, I decided to focus on low literates at ages where decisions relating to literacy were more likely to be made.

Low literates in their early and mid-20's proved to constitute a critical group: Because numerous respondents over the age of 35 spoke of dyslexia and other learning disabilities as affecting literacy, it was important to talk with younger people who were more likely to have been diagnosed as "learning disabled" in primary or secondary school. Their relationship to literacy was quite different from that of adults diagnosed in their 30's and 40's as learning disabled. Whether or not a low-literate adult was currently in a literacy program or not also proved to distinguish between literacy perspectives and connections.

Using a community approach to the identification of low literates yielded a different population than would drawing a sample on the basis of test scores on a literacy assessment instrument. Of the 27 people interviewed;

- 15 were Native American, 12 were non-native;
- 15 were men, 12 were women;
- 6 had completed high school, 18 had dropped out between 5th and 11th grades, 2 had training

past high school, and 1 had never attended school;

- 10 had been associated with either the literacy tutor program operating out of the tribal community college or another basic education program; 17 had had no association with adult basic education programs.

Beyond these facts, the abilities of people who considered their literacy skills insufficient to perform certain tasks ranged considerably. All could read the price markings at a grocery store, some could read simply written novels, most were somewhere in between. Some could recognize product labels, which they described not as reading but of having memorized a word or short series of words. Enjoyment of reading was a factor for some but not others: Some people didn't read "unless they had to", others were unable to read texts they considered boring but successful in reading stories they enjoyed.

Writing was a different story. All but one person reported disliking writing, and most could read better than they could write. Writing was universally equated with "spelling" and seen as having little communication value. What all these people had in common was a personal system for dealing with literacy problems built on their perception of competence.

Organization of Report

Research on literacy perspective among low-literate adults is reported in the next four sections. In the first section, The Self in Learning, various dimensions of self affecting literacy perspective are explored: personal values, emotions around learning, disposition towards learning and literacy, and low-literates' goals and aspirations regarding literacy and learning.

The second section, Social Networks, examines respondents relationships with friends and relatives around literacy, both in terms of social networks and reference groups. I explore the relative balance of reciprocity and dependency in social networks as well as the role of reference groups in influencing decisions about literacy.

In the third section, Dimensions of Community, I describe elements of the community context respondents considered important to literacy perceptions and decisions. Of particular consequence were educational institutions where interaction around literacy took place, such as the tribal community college and small industries on the reservation that were likely to hire workers with poor literacy skills. Equally as important to respondents' interaction with community institutions around literacy were views of community members on what constituted "a person with severe reading problems".

In the fourth section, Toward a Model of Literacy Perspective, a theory of literacy perspective is forged as a result of the interaction between psychological and social contexts and the response--either affective, interpretive, or action--of low-literate adults. I discuss particular cases in which dimensions of self, of the literacy context, or of response converge to form an individual low-literate adult's perspective on literacy. Based on this range of perspectives I suggest some challenges for adult educators in terms of how to look beyond the usual programmatic response to literacy education.

THE SELF IN LEARNING

The human personality is intimately involved in any learning venture. Personality determines how we process cues from the social world around us. The adult education literature is replete with examples of how such components of personality as "self esteem" and "self concept" influence learning. Such references to the self are often ambiguous, providing little insight into which aspects of self influence learning, and what kind of interaction takes place between the self and the larger society. It is useful to look at the interaction between the values and emotions that comprise individual personality, as well as the individual's disposition towards learning in order to better understand some of the forces influencing perspective on literacy.

Personality

Personality encompasses a stable set of characteristics and tendencies that determine commonalities and differences in psychological behavior that may not be easily understood as results of social and biological pressures (Maddi, 1976). This is the definition used by trait theorists Costa and McCrae (1980) in their search for a meaningful framework through which to examine changes in social roles, cognitive functioning and coping behavior. "Traits" are generalized tendencies towards thoughts, feelings, and behaviors which endure over considerable periods of time.

The "NEO" model of personality (Neuroticism-Extraversion-Openness) resulted from Costa and McCrae's study of normative aging. Their purpose was to learn more about traits providing a stable structure of personality within which aging individuals cope, adapt, defend, compensate or adjust. Traits within Neuroticism were anxiety, depression, self-consciousness, vulnerability, impulsiveness, and hostility. Extraversion included attachment, assertiveness, gregariousness, excitement-seeking, positive emotions, and activity. Perhaps the most relevant to adult education are the traits associated with Open-

ness: values, actions, esthetics, fantasy, feelings, ideas.

It is when the learner is "open to experience" (Boshier, 1973; Maslow, 1968) that learning is most likely to occur. A lack of openness is typified by anxiety, leading to defensive strategies which close cognitive processes to elements of experience.

A look at values is a good starting point for an examination of the effects of personality on low-literacy perspective and openness to experience. The valuing of a learning experience is one of the most important elements of motivation towards learning. Wlodkowski (1986) posited that the strongest motivation occurred when adults *successfully* learn what they *value*, and *want to learn* in an *enjoyable* manner. Values, however, are not limited to learning; in order to better understand how values affect learning, a broader picture of values in other areas of life is important.

Recent research depicts values of low-literate adults, and particularly of minority adults, as embedded in negatives: lack of future orientation, initiative, autonomy, and the all-purpose category, "lack of self-confidence" (Boyd & Martin, 1984; Mezirow et al., 1975). Thompson (1983) summarizes the "afflictions" attributed to "disadvantaged" adults by educators: apathy or fatalism; lack of confidence, ambition or drive to get out of or improve their situation; limited horizons, a tendency to live for the present and often in irresponsible and non-productive ways that are labelled as sponging or scrounging; restricted use of language, and possession of what has been called "residual hostility to the whole idea of education" (p. 42).

When study participants talked of their feelings and practices around work, family, communication, schooling, and literacy, it was inevitable that values would surface. What emerged were beliefs strongly similar to mainstream "work ethic" America: reward for hard work, exercise of will power to overcome problems, perseverance in the face of adversity, the virtue of self-improvement, maintaining steady employment, and providing for family before attending to personal needs. In the next section, I introduce some of the participants and describe some of their basic values in life.

Bart, a 26 year old tribal member, had worked for two years in a small electronics firm owned by the tribe. Although writing evaluation reports on subordinate employees caused him great difficulty, he took great pride in his role as a supervisor.

> Anything I work with I don't want to screw it up. I take a lot of pride in my work, that's where I think there's a big lack in people. They don't take pride in their work, they'll scratch something, drop it, break it, they'll chuckle about it. That's the way a lot of people are.
>
> Anyplace I've ever worked, I start at the bottom, I can work myself up, fast. These guys, they'll start at the bottom, but then they work one week and they want to be right there with you. I've never left nobody in the dark. I've always finished up whatever I was doing with them. I've always had good relations with all the outfits I've worked for.

I asked him why he thought his attitude toward work was different than some of the others he worked with.

> What's the difference? Being raised in different kind of family atmosphere. My dad and a lot of my family is really smart, and you just learn a lot in the time that we're all together. We're all constantly learning something. Taught values and stuff. A lot of these people have no value for anything.

Jeff, a tribal member of 41, had worked all his life at jobs on the reservation that did not require reading and writing skills. His work history was similar to that of other male study participants: "post and poling" (in lumber yards), nursing home orderly, and small industry. At the time of the second interview, he had just taken a new job cutting and assembling wooden toys. He talked about a strategy for turning this job into steady, year-round employment and about relations with his boss.

> What's going' on, I haven't missed a day since I started. My boss has his certain bunch of steadies, and I happen to be one who hasn't missed and he's included me in with them. I don't fool with break time, that's a waste of my time. Try to get out the material as best I can, as fast as I can, and he's trying to include me in with 'em, this certain bunch.

Working steadily, working well, and being loyal to your employers--for Jeff and Bart, these were the means toward larger ambitions of making more money than their parents and supporting families. This didn't mean that confidence never flagged or that apathy was not occasionally a problem; just that in general, values around work did not differ that much from standard societal norms.

A further challenge to the notion that low-literate adults are plagued with "limited horizons" came from Rick, a 39 year old tribal member. His plans for learning started with basic reading education, then proceeded to the GED, and finally to the study of computers:

> Pretty soon you won't be able to work in the woods 'cause they'll be computerized. They already got the sawmill on computer now;

before when you went in, they marked your material by hand. Now they just run it through the machine, which has a computer that grades your lumber. That's why I was thinking about going back to school, to get into computers.

Have to go with the change, can't sit back in the 19th century or even the early '60's and wait. I don't like to be the bottom; I like to get up and earn a decent living. I can have all the experience, and a college graduate can come and take my sawing job; he has a computer with him that tells how many 1000 board feet you can get out of this section right here, and how much money you can make from that.

Valuing of family also figured prominently in this study. A number of participants had put their own learning needs on hold either because they conflicted with time necessary for raising children or the need to work to support the family. Ronald, a 40 year old tribal member, had tried three times over 15 years to get his GED, and "failed every time". Although he felt strongly now that lack of assistance from tutors trained to help dyslexics was a barrier to progress, in years past family responsibilities had stopped him. I asked Ronald what interfered with learning.

Just my family. Are they gonna be taken care of financially? We got bills like everyone else. If I'm away, who's gonna take care of them? That's my responsibility. Stopped me from going full blast into it. No problem in program itself, just a financial problem, coming up with the finances to pay for the program, the expense of going back and forth from here to the school 50 miles away.

Certainly cost is one of the "situational" barriers to renewed learning that arises in adult life from time to time (Carp, Peterson & Roelfs, 1974; Cross, 1981). But many low literates are strongly motivated to improve the situations of their families, despite conflicting responsibilities to the very families they are trying to help. Sheila was working sporadically with a tutor in order to learn to read and write sufficiently in order to enter GED courses. At age 22, she had two children, having left 9th grade when she got pregnant. Despite her claim that her life was nothing but "easy stuff", by the time of the second interview she had a timetable for completion of tutoring, the GED, and entry into the local community college. During the first interview, she talked of her aspirations:

I wanted to be a court recorder, but that's too long at school. I want to do something easy, but I don't want to go to school for the rest of my life and make nothing, you know? Told my grandma "wish I would hurry up and grow up and figure out what I want to do." She just *laughed. But I can't do anything now that I got* two kids at home. After they start school I'll do something, because then I could have nine hours on my own. I'd like to get my GED so when they do go to school I don't have to mess with that too.

Disposition towards learning is heavily influenced by emotion as well as by preference for a particular mode of learning. The source of these emotions is often as much in the past as in the present; positive and negative emotions exist side by side. An exploration of the negative as well as the positive does not mean a return to the "deficit" perspective on illiteracy, but rather recognition of the reality of the mixed emotions human beings hold on issues integrally linked to perceptions of competence. Following is an exploration of emotions and attitudes that seemed particularly important as shapers of perspectives on learning and literacy.

Pride, Hope, and Fatalism

Jeff found out about the literacy tutor program through a boss who was also a trusted friend.

Joe's the one who told me about this program. And I had accepted life, that I'd never really get to read, that was my destination until he told me this, then I was really interested.

I'd love to learn something that's got to do with reading and writing, learn to run computers. I'd love to have a job where I sat there in a white shirt, dress pants on, set there and "clack, clack, clack...". I wouldn't even mind being a secretary; but of course I can't. Like I told my family, I accept my destination. By the time I even master reading, I'll be 45, by the time I go to school and try to learn something, be four or five more years; Jesus, I'll be 50-some years old--who's gonna hire me then? I'll never have a good job; all I'll ever have is a backbreaker; I've been going through life like that.

While Jeff was fatalistic about his chances for fulfilling his dreams of reading, writing, and working in an office, there were areas in life where he excelled, such as working in the timber industry. Another priority was staying in good physical condition, as witnessed by his push-up competitions.

Competition is a game for me when I work, like I got to beat the other guy, I can't be second best. Got to be the best at anything I do. So I usually end up beating these young guys. I do work out constantly. That's why I stay in shape, 'cause I can't be second best, except for one thing, that's reading.

> There's people know I can't read or write until this day, but they will not say anything smart to me, because they know what kind of person I am. That's a slam and a half to me. That's why I was trying so hard when I started with the reading program.

Jeff was proud of an elaborate series of strategies that enabled him to pass as literate. His pride in his physical strength and in performing well on the job despite illiteracy stood in stark contrast to the despair he expressed over ever learning to read.

Guilt and Challenge

It was clear in talking with participants that experiences in primary and elementary school had a tremendous impact on feelings about learning as adults. Jeff talked about the difficulties in working long hours in the woods and then trying to study at home afterwards. In spite of his competence in other areas of life, his inability to devote as much time as he felt necessary to studying made him feel guilty:

> Working long hours was hard. I wanted to go back to my tutor but I couldn't. So I just kept on postponing and postponing; figured the teacher got tired of me postponing, probably the coordinator did too. I haven't had any contact with them since, you know--I was kind of embarrassed to call her up or see her.

These feelings were strong, despite his like for the volunteer tutor and the program coordinator, and the program philosophy of letting the learner determine the pace.

Bart blamed himself for what he considered his poor performance in high school.

> I was a C student, and I just scraped. And that's the way I was in high school, and a lot of it was my own fault. I'd just do what I had to do, didn't do no more.

As an adult, however, Bart took a lot of pride in his initiative, in his ability to figure out how things work.

> In high school, I didn't have all that much money. I owned a car and just tore into it myself and starting learning on my own, picking up on it and before I knew it I was good enough to jump right into the trade. I'd constantly be learning, staying up late at night, doing a lot of learning on my own.
>
> The concrete business, that was sort of a challenge. Never done concrete work in my life; in less than a week the boss was sending me out on jobs by myself. If I like doing something, I'll pick up on it fast, take it home with me.

When he contemplated further school-based learning, Bart painted a scenario of initial interest, subsequent distraction from learning followed by simultaneous boredom and attraction, and finally, depression over the whole experience.

> I thought about going back to school pretty seriously for a while there but yet I got so doggone much work at home I just figured I wouldn't go down and start a class, something I couldn't finish. I'd get right in the middle of it and have to go home and take care of work at home. I thought about taking some kind of course down at the local college, just something to brighten me up. I've always had that feeling, maybe something will catch my eye and then I'll be learning really quick. Then I think, God, just what I want to do, go into a classroom, sit around for three, four hours a night, go home and have to stay up an extra three, four hours to get my work done at home then be at work the next day. How long would that take before I'd be bummed out about the whole deal.

Like Jeff, Bart saw himself as a competent individual, capable of accomplishment in some areas of life. For both, however, certain aspects of school-based learning undermined confidence: tutors are really teachers who might disapprove if you're out of "class" too long; the idea of learning something new might start out as a challenge, but there's the risk that sitting in a classroom long enough might kill the initial enthusiasm. Staying up late to figure out how to repair a car on your own is a challenge; staying up late to take a class is a "bummer".

Fear, Drudgery, and Defiance

At 26, Jake was working as a nursing home orderly while waiting for his probation on drug charges to expire. Diagnosed as dyslexic in third grade, he had been "helped" by teachers and parents throughout much of his childhood.

> It was like I was in school all my life, get up and go to school and dread that, then come home. My dad was real strict--he'd make me work for a long time, for a couple hours after school. He didn't really understand it, he thought I was screwing around, so he'd just sit there or make my mom do it, try to drum it into me. I still can't divide, can't remember the steps.
>
> I remember the LDG (learning disability group) class. Every day, in 4th grade, the teacher would come around to me and say, "Jake, do you have your homework?" And everyday, "no." In about 7th or 8th grade, the teacher was bound and determined to teach me division, so every day everyone else would sit in their normal classes and I had to go up and sit by Mr.

Patterson's desk and go over this. Can't remember any division now.

The drudgery of school did not even lead to the reward of knowledge, since much of what Jake had tried to learn--math, reading and writing--never "took". His only formal learning experience as an adult was a required class for drug offenders, where the politics of staying out of jail far outweighed any learning that might have occurred.

> Made me mad. Somebody told my probation officer I "wasn't cooperating" in class. I don't think they're well-trained or professional in this little class, but if I piss 'em off too bad they'll tell my P.O. I'm not cooperating. So what's gonna happen, I'm gonna go along with their little game, get nothing out of the class, so I won't have to go to the drug treatment center for a month. Think my last class I'll tell them what I think of them.

When asked what he needed to know to get through such trials, he valiantly stated "you need to know you can do anything you want if you want to." But shortly afterwards, he reflected on his experiences with formal education:

> Those kinds of things depress me so much, they're so hard to get through. Despite everything I just said, about doing anything you want to, I get this feeling, "ah, hell, I can't do that." It really gets me down, so I just avoid it.

Failure, Doubt, and Challenge

Carol, a 31 year old white woman, sought adventure, even though it conflicted with her need to make a living for her disabled husband and young son.

> I'd like to go out and do a lot more. I want to experience things, guess I got that from my mom. Go out and do a little of everything, just so you could say "yeah, I did that for a year." Doesn't get you anywhere, though.

She came close to getting a license as an Emergency Medical Technician.

> I could kick myself in the butt for giving up on my EMT. It got down to taking the test. I'll go through all the challenges, but I'm scared of failures. I think it was the test that scared me.

Carol described several other situations in which she got excited about a work or learning opportunity, then balked.

> I applied to the Veterinary Assistant program in Seattle. I filled out the forms, but was afraid to actually start--afraid of failing, also fed up with people; decided I liked animals better at that time.
>
> Like right now, my boss really wants me to go and, "prep", and be a cook. Guess it's more like insecurity, I'm kind of hesitating. I don't really want to stay a dishwasher. Well, I guess the reason I'm hesitating so much is because I don't really want to be a cook.

"Fear of failure" stopped her from acting in some cases; in others, she questioned whether she wanted what others wanted for her. An important part of motivation is the relevance of a particular goal to the learner (Keller, 1987). But when the goal itself is not clear to a low-literate adult, relevance is clearly not the issue.

Anger

Twenty-eight year old Millie came from an impoverished childhood environment. Her marriage to a man who paid little attention to her and her five children solidified her anger against her past as well as her present life.

> They had us there in an orphanage in Great Falls, one of the places where they put Special Education classes. Special Ed. is supposed to be there to help you but they didn't help me any.
>
> Got a stepson that's 14 and a stepdaughter that's 12. They're always asking me to help them and I can't help them and then they get mad, and I say, "well, what the hell am I supposed to do if I can't." I just decided I wanted to try and learn to help them a little bit.
>
> All I ever did when I was growing up was take care of my brothers and sisters and clean house, I never had a childhood. My mom wouldn't let me outside and play. I'd come home from school and clean house, cook and stuff. Didn't have much of a life.

Her present rage was levelled at her husband and sister for not helping her with her reading lessons, and at her children for not doing well in school. She wanted to learn how to read well enough to take the driver's test, but felt she couldn't do it without help. Millie was totally enveloped in anger, and was not at a point where she knew what she wanted, let alone how to get there.

Disposition Towards Learning

The other core set of values emerging from interviews with participants related to learning: the importance of learning through experience, sharing knowledge with others, learning on your own terms, and "playing the game" when necessary. Study participants talk of "learning" encompassed many objectives: learning job skills, reading and writing, and learning to better understand themselves. Participants' most frequent reference to learning, however, was in terms of pragmatism, of using

knowledge to realize a goal (Aslanian & Brickell, 1980; Keller, 1987; Wlodkowski, 1986).

One of the study questions related to how respondents liked to learn. They frequently mentioned how learning should be connected with use in order to stimulate interest. John, a 41 year old tribal member, was one of the few Native American participants to describe a traditional lifestyle as a child.

> This was where my interest was, in hunting, gathering food, hide-tanning, drum-making. When I was seven, I was working with my grandmother. When she'd scrape a hide, she'd have me out there with her. We'd scrape three or four hides, then we'd start working on them. She always had me doing the edges, pulling down and catching them, 'cause I was short enough. Drying meat was just a way of life. Lived in two houses in Idaho, neither one of them had electricity or indoor toilets. That's how we'd dry the meat, hang it up in the pillow case. My grandmother always had some up in the attic.

John continued working with hides and other native crafts as an adult, teaching them both informally and as a teacher in the Indian high school on the reservation. At the time of the interviews he was in the process of following up on his latest interest, horse-hair braiding for hatbands and belts. His enthusiasm for learning these practical, culturally-related crafts stood in stark contrast to his experience with schooling as a child:

> I tried to go through the school system but when I was pretty young they told me I had to get rid of my Indian pride and I didn't. And so I fought 'em all the way. There wasn't a place for me there. I didn't feel that I was one of them people that wanted education or needed it.

After leaving school in 9th grade he went on to support himself the best way he knew how.

> I stayed with different people where there was work to be done. I knew how to chop wood, drag fence posts, dig holes, buck bales, all that was seasonal work. It seemed to be easiest for me to be doing, didn't require reading, writing, adding and subtracting--a job that had to be done and I did it. Do, and get paid for it, while other people my age was going to school.

He had gotten briefly involved as an adult with a literacy tutoring program, but dropped out after a while.

> This last year I went through a tutor. He was working with me and I enjoyed working with him, he was an older fellow. We was doing our reading and I lost interest. I don't see an end for it, I don't see a job at the end, I don't see a money value. I guess I'm blind to it; I don't see the value of reading and writing.

The learning that John had been involved in all his life had led to satisfaction of the need to provide food and income as well as the joy of learning something new.

> The want and need to do it is the best way to learn. If you want something and need something and there's no one to do it for you, go find someone that will show you if they've got time. I know a man near here that does horse-hair braiding. He's probably in his '70's. Look for an elder! Somebody that has done it.

His examples of the kind of teaching he liked and the kind of teacher he tried to be related to the teaching and learning of practical crafts.

> What kind of a teacher do I like? I like somebody who gives you something and it's hands-on. It's all right there, they explain it to you, you're doing it, and when the product is done it's yours, rather than turning it in to the teacher. It's gotta be for real.

John talked of motivation to learn as predicated on "want and need"; scholars speaks of "volition" and "value" (Wlodkowski, 1986), of "attention" and "relevance"(Keller, 1987) and of adults' problem-centered orientation to learning (Knowles, 1980). The other dimension of useful learning is what John and others referred to as "hands-on" learning, frequently referred to in adult education literature as experiential learning (Kidd, 1973; Knowles, 1980) Another study participant reiterated the importance of learning by doing and of perseverance. Sarah, age 60, attributed this attitude towards learning to Native American culture:

> That's where Indians are a little different from the white people. If the Indians really, really, want to do it, they get down and do it on their own. If they can't figure it out the first time, they go back and try it again, keep trying until they get it right. I guess it's in all of us like that, something that we want to do, we try it, and if we can't make it the first time, we go back and try it again.

Her childhood was rooted in the practicality of farm life. She talked about how her children had learned drumming in the traditional way, by watching others, and then imitating them. Rick, another tribal member, described a similar process:

> That's how I learn mostly, just watch people. Like I didn't have a car before, used to walk to work. There was a garage on the way; I'd just sit there for an hour, two hours before I got to work, killing time. The guy that worked on these cars, he showed me what was wrong with them.

I just sat there and watched. He showed me how he fixed them, at least the minor parts.

Although Sarah attributed this style of learning to Native American culture, non-natives reported similar preferences for practical learning. Marty, age 26, had worked as a jockey and truck driver in the past, and now managed a trailer camp.

> How you learn is by doing something. Since I was nine years old, soon as I was old enough to use a wrench, I'd take my bicycle apart and put it back together. I took my first motorcycle apart and my folks was upset--I wanted to see how it worked--took it all apart and put it back together, and it worked fine. Same thing with farm equipment. It's basically just trial and error.

Carol worked as a dishwasher and maid at a local hotel. She had worked at a sawmill, as a barmaid, and as a nursing home aid in the past.

> Yeah, I'm a quick learner, I feel that myself personally I catch on fairly fast, especially in housekeeping where they usually go in and show you. Whenever I have any questions, when I have a "why" in my head, I ask. 'Cause I don't like those question marks--"why do I do this this way?" "I don't know, it's been done that way for years." But why?

Thirty-five year old Lavonne also had ideas on how she wanted to learn.

> I feel like I learn more if I sit down and watch a movie on something, like if they have a movie on driver's education instead of going through the book. I learn more on TV 'cause they're just sitting there talking to me. If they could come up with a video on driver's education for people like us, just take questions they're gonna ask right from the book, that would help. They've come up with everything else, why not have a class, then just show it on TV. Then the teacher asks which part they really didn't get or want to go over. Could rent the video, bring it home, go over it in privacy, stop it when you want.

Having the right to learn on her own terms was as important to Lavonne as her particular preference for learning through video. In contrast, she found that the standard approach to getting a driver's license for low-literate applicants was to teach them how to read first, then administer the driver's test. This limited the options for people like Lavonne--she chose to enroll in tutoring sessions to improve her reading, but she became frustrated with this circuitous route to the goal of getting a license and eventually quit.

Several participants talked about the importance of passing on knowledge gained through experience. "Hoarding" knowledge is a charge levelled at the formal school system, in which students are taught that knowledge is not to be applied in the present, but "banked" for some future use (Freire, 1970). Most of the adult low-literates interviewed in this study clearly believed in direct application of learning, and some also felt strongly about teaching others at the same time. Ben, aged 54, stated that if he could do any kind of work he wanted, he'd be a teacher.

> I think teachers are the greatest asset to this country, because it doesn't do me any good to retain the stuff that I know. (What kind of teacher would you want to be?) A teacher in what I'm talking to you about (forestry, environmental issues). Somebody whose interested in what I know--I love to talk. Have 'em come up and I'll talk to 'em. That kind of teacher. (Not in a classroom?) No, but I'd go in and if they were studying a subject, I'd go in and tell them everything that I know about it.
>
> Maybe I'm more of an informational person; I like to be able to deliver what I know, whether it's as a teacher or someone who just wants to come and talk to me. I use that myself--if I have a problem, I go to somebody who knows, but I don't stop there; I go teach somebody else too.

Ben's attitude toward dealing with the literate world was clearly on the cosmopolitan end of Fingeret's (1982) continuum. He passed as literate, was not intimidated by more literate coworkers, and used communication resources available to him. Ben was wary of people who took information, and then did not provide any feedback on how it had been used:

> I found you got to be pretty durable because you run into people that are using your knowledge to benefit them but it doesn't come back.

His experience as a representative on an advisory committee comprised of loggers and environmentalists had given him the chance to be heard on a lot of issues he valued and had taught him a lot about the give and take between "professionals" with a lot of education and those with practical knowledge, but little formal training. He related this experience to teaching:

> They say there's two sides to the issue, but I say there's three. First, you got to get rid of the emotional aspect of what you're teaching--say you're teaching a touchy subject: You got an opinion, someone else has a different opinion; you should teach the three sides of a subject, go with the radical, the moderate, the in-between. You're gonna come so close to perfection on

> that you'll be proud of yourself because you've split the middle of the road, you've drawed knowledge from two other sources besides your own knowledge. You're gonna get 'em all that way. Pick out what those three people said and present it to the class--that's the teacher's ability.

John's views on teaching came primarily from his own experience as a teacher. He had taught Native American crafts for seven years in a high school and also worked as a consultant to other schools and summer camps wanting a crafts teacher. I first met him at a camp where he was teaching hide tanning.

> My way of teaching is that I'll teach anybody anything that I know. Students have to want to know it in order to really get them involved with the teaching. Somebody that has to be there is hard to work with. If they want to be there, that makes it easy. 'Cause there's the questions, the answers--it gives me a place to start from, from their question. Hopefully I can go all the way through to satisfy them to where they feel like they can go ahead.

Adult educators can agree that working with willing students is a lot easier than with "captive" learners. At the time of the second interview, John explained his method of teaching.

> Hide Tanning I is where you're visiting and talking about it; Hide Tanning II is where you get in some hide tanning; Hide Tanning III, you do the hide yourself. The first thing you make is priceless, so you give it away--it's a work of art. That came from my grandmother. You give it to grandmas, aunts, uncles, friends--somebody that's going through life with you.

Low-literate participants learned through their experience, by watching and doing. These learning preferences related mostly to skill learning, where learning by doing is especially appropriate. Most of the learning described took place informally, in everyday settings, although there were reports of more formal learning. For some, teaching was a natural extension of practical, everyday learning; existing apart from their school-based encounters with teaching and learning as children.

Discussion

Of the many dimensions of personality, values and emotions emerged from interviews with low literate respondents as being particularly relevant to attitudes about learning. Participants generally took pride in their work and believed in working hard. They had a vision of what the future held, particularly what they had to do to raise and care for their families.

Emotions around literacy were frequently mixed. As respondents talked of themselves as learners, they spoke of their hope, desire for change, and need for challenge. They also spoke of the frustration they encountered when they tried to learn to read and write, and the despair they felt over ever succeeding in improving literacy skills. Anxiety over the ability to learn reading and writing was invariably connected with memories of school: of approaches that didn't work, of failing, of being forced to sit in a classroom where nothing made sense.

Negative feelings regarding literacy were invariably balanced by positive emotions: low-literate individuals described difficulties with literacy but also talked about strengths, such as physical condition, good work habits, or the ability to learn from observation. A few, like Millie, spoke only of their anger and pain, creating the impression that these feelings were stable personality traits that had indeed endured over a long period of time.

Learning that goes on everyday in the workplace was described in more positive terms than learning necessary for reading and writing. "Practical" learning should be based on want and need, and should be "for real", i.e., the production resulting from learning should be used. It should not exist in a void--if you can find someone who can teach you, so much the better. Once the learner has learned something, it is that person's responsibility to pass on what he or she has learned. Learners should seek out differing opinions. Both the process and results of learning should be shared with others in the community and should start with learners' questions. If these attributes work for learning in general, then they should be applicable for learning to read and write--particularly when previous school-based ways of learning have created generally negative feelings about literacy.

SOCIAL NETWORKS

People who read and write with great difficulty often rely upon social networks of trusted friends, family, neighbors or co-workers to help with the creation and interpretation of text and to provide an environment supportive of literacy efforts (de Avila, 1983; Fingeret, 1982, 1983). Fingeret's research in particular has challenged some common assumptions about adults with reading problems. Her research suggests that in many instances (a) illiterate adults are able to successfully negotiate the literate world, and are not incompetent just because they cannot read or write, (b) adult illiterates are assisted by members of their social networks when they need help with literacy and are not isolated by their reading and writing problems, and (c) low-literates main-

Figure 1

Categories of Exchange Around Literacy

	Balanced	Imbalanced	Nonexistent
Satisfying	Task specific Interdependence Symbolic reciprocity	Acceptable dependency	
Unsatisfying	Feelings of unworthiness Grudging reciprocity	Unacceptable dependency Desire for autonomy	Hostility Distrust

tain dignity and self-respect by helping their readers in return; "reciprocity" is thus a critical concept that portrays low literates not as passive recipients of the assistance of others, but as active participants in the social world.

Of particular interest in this study was further exploration of the range of literacy networks, from reciprocity to dependency, described by Fingeret (1982). She spoke of a redefinition of social exchange around literacy when non-reader and helper related to each other within a context of equality:

> When reading is one of the many skills or services offered in the reciprocal exchange relationship, illiteracy ceases to define dependency when illiterate adults offer different, but equally valued, skills or services in exchange (p. 143).

The concept of balance is important to understanding both reciprocity and dependency. Reciprocity in literacy networks assumes both non-reader and reader are on equal ground, exchanging comparable services; in other words, exchange around literacy is balanced. Dependency assumes the non-reader has no access to the literate world without the services of the reader. When exchange is imbalanced, the non-reader has less "power" to communicate through reading and writing. As Fingeret (1982) points out, however, illiteracy is not automatically the source of dependent relationships within literacy networks.

> (Margaret's) withdrawal from the social world creates asymmetrical inner network relationships. For Margaret and others like her, it is not their illiteracy that places them on the dependent end of the continuum, but rather their inability to engage the social world. (p. 141)

Such an "inability to engage the social world" suggests that the interactions of low-literate adults and others in their social networks are affected by any number of interpersonal dynamics potentially unrelated to the reading and writing tasks at hand. Indeed, a complex picture of exchange among members of literacy networks emerged from analysis of respondent interviews. The matrix in Figure 1 depicts the various patterns of exchange as balanced, imbalanced, or nonexistent; as satisfying or unsatisfying. The aim of this heuristic device is to better explain literacy networks as they were described by low-literate respondents.

Balanced Exchange--Satisfying

Two primary characteristics of "balanced" exchange, or reciprocity, emerged from interviews with study participants. First, mutual respect between low literate adults and their readers provided stability regardless of the services exchanged. Second, each party in the exchange enjoyed rewards from associations around literacy: Low-literate respondents described what they gave to members of their networks and what they received. The three types of balanced exchange are explained below.

In task-specific exchanges, a reader helps a low-literate adult with a literacy task and receives assistance or a service in return. Literacy interactions were generally devoid of the strong emotions that are part of relationships where one partner has more power over the other. Sheila typified this category of reciprocity. The reading helpers in her social network were generally young, recently married women.

> I try to help as much as I can. My friends all know how to read, or act like they do. They're all married, all newlyweds and have problems sometimes. I feel like I've been in the boat for a while, they're always coming to ask me "what should I do?" Some of them have babies and ask me about that.

Because Sheila felt she was on equal footing with her friends, she did not hesitate to ask for help. Interactions with her husband and mother also centered on specific literacy tasks:

> If I ask him how to spell a word, he'll say "sound it out" and won't help me 'til I get mad at him.

> But he's been pretty good. My Mom helps too, and I got a dictionary. I'll have my husband tell me the first two letters of a word if I don't know it, then that's all the further I'll have him help.

Sheila's relationship with her husband was more difficult to describe in terms of reciprocity. The "give and take" between reader and low-literate adult became more complicated when the relationship was between spouses rather than friends.

In some cases, help for literacy was embedded in an intimate relationship--it was difficult to sort out the terms of exchange for literacy services. Ralph was striving for greater interdependence with his wife around literacy as well as domestic tasks.

> We're getting so we work more as team. I don't just go home and lay down on the couch and let her do all the work, do more housework. I'm trying to work with her as partner, not let her do it all. Before she took care of the house whether she was working or not. I always thought before that I wanted her educated but not working to help support the family. Now I realize that it takes two people to support a family. She can't do her job and come home and work, cook supper, etc. Me and my son are starting to pitch in. It has changed our life a lot.

Ralph described how he and his wife would take courses together: in a photography class, she took the notes; "I got a B, she got an A." He dictated what he wanted in a paper for another course he took on his own, she wrote it. When he got a C on this paper, he saw it as his responsibility: "It was my fault--we were given seven weeks to do the paper, I didn't get it in in time." In any number of situations, she gave help with reading and writing only when he needed it.

At no point did Ralph describe his relationship with his wife regarding literacy as one of dependency. What his wife received in return was more help around the house, though this help was not directly in return for assistance with reading and writing.

Low-literates and their readers sometimes shared a knowledge that favors would be returned if need be. This assumption did not have to be voiced but was instead symbolic. Jeff suggested that "knowing how to talk", making a co-worker or boss feel good about himself, was a good way to escape literacy tasks. He used similar strategies in his jobs in a lumber yard, wooden toy assembly plant, and nursing home.

> I'm pretty smart--went to the foreman and said "well, I haven't really done this kind of paperwork". He does a form for me, I'll look at it, make one up ahead of time, so I know what I'm doin'. Other than that, I try to get out of it and let somebody else take over the work...Like there's this guy at the plant, he's good about it. He knows I can't read.

I asked Jeff if he gave any kind of assistance in return for such services.

> No, I feel like if he was ever in a jam, I'd sure give him a break. A man helps me like that, in a situation where he knows I can't read, buddy, when he gets in a jam, anything he needs, I'm there to help him. That's the way it works with guys around that I know. We don't owe anybody anything. We're there for each other if we need it. No favors.

Jeff and his low-literate co-workers did not require actual exchange of services in such reciprocal arrangements, in contrast to de Avila's (1983) study of Spanish speakers in Texas. Dignity was maintained by the knowledge that if help was needed, it was there. Gouldner (1960, p. 164) suggested that in some instances "cultural prohibitions" may preclude the examination of exchanges from the standpoint of concrete reciprocity. The male working culture described by Jeff may be an example of situations where specific exchange is symbolic of the real terms of exchange--the underlying mutual support between social network members (Blau, 1964).

Balanced Exchange--Unsatisfying

The emotional climate in some social networks in which exchange occurred was negative, even though transactions appeared reciprocal, or balanced. Although poor readers received the assistance they needed, they were unhappy with some aspect of the relationship.

Diane, a 32 year old tribal member, was uneasy about receiving help with reading and felt more comfortable helping others. She lived with her two children in a trailer adjoining her father's house and her sister's house. Diane described herself as a "really shy person", one who got embarrassed easily. There were few instances in which she expressed a positive view of her abilities. Diane helped her sister with babysitting in exchange for assistance with reading.

> If I can't read something, I go ask Karen, my sister, or my sister-in-law. So that's why I never feel like I'm really stuck. If I get something in the mail, I could ask either of them. I don't like drivin' at all, if I have to go someplace or fill out an application, they help me. If they weren't around, I don't know what I'd do...

A relationship that appeared to be one of interdependence was confounded by Diane's desire for invisibility. I asked her how she helped her sister and

sister-in-law:

> I help them a lot in taking care of the kids, cleaning house. And then they turn around and start doing things for me and I can't accept it. I just think "well, she has six kids, Doreen has four, they can't be helping me." So I'd rather be helping everybody else, but not them helping me.

Discerning Diane's wishes for herself was difficult. Like many other women, she tended to define herself primarily in terms of connection, circles of caring, and how she responded to others (Gilligan, 1982; Noddings, 1984). Diane spoke with ambivalence about her attempts to enter a diabetic training program and her family's reactions.

> At the time they wanted me to go, but I was too busy helping Karen, so I didn't make it. I would be going over there every day, people would come in, I'd take blood pressures. But I couldn't go there because I was helping Karen.

While the role of "help-seeker" led to new, unknown territory, the role of "helper" was safe and gratifying.

Jake spoke of his social network at the nursing home in disparaging terms. When he needed help filling out patient charts, he would grudgingly seek help from his co-workers.

> It's usually not a big deal, it only takes a few minutes. But also, if it's charting, I'll tell them I'll do some other small task for them if they'll chart for me. Otherwise, they'll crab about me being lazy, which they always do anyways...I'll just ask somebody that I like, if they go "why?", I'll say "'cause I can't write too good."

Interactions were based on a tenuous mutuality, grounded in necessity rather than respect. There was little basis for trust or respect to keep the relationship intact if either Jake or his readers got angry with one other.

Imbalanced Exchange--Satisfying

Some low-literate adults described either literal or figurative dependence upon a reader for help with literacy. Such dependency was at times acceptable, at times unacceptable. Reciprocity for help with literacy appeared irrelevant.

The relationship between John and his wife, who was also his reader, was described in terms of acceptable dependency. He painted a grim picture of negotiating the written word--as well as the rest of life--without her. John had lost his job of seven years as a teacher of Native American crafts when his job description was rewritten for someone with a high school diploma. Because of this firing "without due process", John had spent years trying to sue his employer. I asked him who helped with this suit.

> My wife, she takes care of all my paperwork. There's a lot of paperwork, with the lawyer. We have to keep track of our papers, a filing system. Without her, I'd deal with life completely different, I'm sure. I wouldn't do that paperwork. Probably cheat, rob, and whatever else comes after it. For me, she's a very important part of my life. I don't know what I would do...survive, somehow, but it would be a lot tougher.

His participation in a Literacy Volunteers of America (LVA) tutor program ended when he decided that despite liking both the approach and his tutor, learning to read and write would not lead to either a better job or more money. His current social network provided adequately for most of his literacy needs. John believed the real cause of his present underemployment--getting fired from his teaching job--would better be remedied by a lawsuit than by enrolling in a literacy program.

Imbalanced Exchange--Unsatisfying

"Dependent" transactions around literacy can affect either the reader or the low-literate adult. Dependency was described in one case as creating a burden on the reader; in another, as stifling the growth of the low-literate adult. In neither case were reciprocal services described for help with reading and writing.

Ronald, a 39 year old minister, talked about his wife's help with letter writing.

> My wife she reads real good, she's real smart. And she does all my paperwork, writes all my letters. When we came to the LVA tutor office yesterday, she said, "well, sounds like you might get some help." I said, "then I won't have to rely on you anymore." I know it bothers her sometimes that I have to ask her to write letters for me. Lots of times I want to write to different ministers, different organizations, but I just can't do it and I need her to sit down and write a letter for me. Sometimes she don't put it in words like I do and I gotta make sure that it's written in the words like I want it. It's a lot of frustration for her too. So I think if I can learn to read and write and spell I can take some of the load off her too. And off myself.

Change in literacy status was evaluated in terms of how it would improve the relationship; in this case, how his improved abilities would relieve the burden of reading and writing chores from his wife. This situation differed from that of Ralph, who did not describe his relationship with his wife over literacy in terms of dependency, although he too received much help from her. Ronald appeared motivated by a concern for his wife and by a desire

to do his job better.

Seeking greater autonomy in a relationship is the "flip side" of not wanting to be dependent. For Jill, independence in performing literacy tasks was integrally linked to autonomy in her marriage. Jill's husband suggested that I talk with her; he had the feeling that she could read and write better than she actually did, and wasn't sure why she always asked him to help.

> A lot of times I have to use Fred to write something for me to get in proper order and the right words, periods where they go and commas. If I write to my mom, she reads it, no matter how I write it! But if there's anything about business, Fred has to do it for me.

I asked her what made some literacy tasks more difficult.

> I feel I can't do it, so I turn it over to him. I got in that habit 14 years ago when we got married, but I want to get out of that rut into something different.

She then reflected on what she termed her "dependency" on her husband for reading and other communications tasks.

> Now if Fred were here, he'd do most of the talking. 'Cause I think he puts it in better words. I was almost tempted to call him and tell him you were coming. I would have started something, and then given him a look, "hey, it's time for you to jump in, 'cause you know what I think," so he would have done all the talking. I don't know if he has made me do it or if I have just grown up with that attitude. Even though we are here on the same level, I still want to put him up here.

The death of a son-in-law had led Jill to this period of introspection. With the support of a religious study group and of a counselor, Jill eventually named her marital relationship as one of dependency and questioned her role in its creation.

No Exchange--Unsatisfying

Those social networks characterized by reciprocity or dependency were based on trust, respect, or necessity. This meant that at least some kind of relationship was possible. Even when dependency was unacceptable, the locus of control resided with the low-literate adult wanting to make a change. In several other cases, low-literate women sought help from husbands, friends or relatives with whom there was little basis for a helping relationship because of a notable lack of trust and respect. These cases differed from that of Jake, where exchange around literacy occurred despite the mutual dislike and distrust between reader and low-literate, perhaps because of the larger context of the work environment.

Millie's social network around literacy was limited and hostile. She lived in a government subsidized housing development with her husband and four children. Her husband rarely allowed her to leave the house, and sabotaged her efforts to learn to read so she could take the driver's test.

> My husband, he don't have time to work with me either, 'cause he works construction all day and by the time he gets home he's too tired to do anything. My friend told me to have someone put the driver's manual on cassette for me, all the questions and answers, and just keep listening to them 'til I got them down pat, but I can't even find anyone to do that. My sister won't even help. She and my husband tell me that that's cheatin'. But what am I supposed to do if I can't read the manual?

Millie's anger was fueled by her failed attempts to interest those closest to her in taking the time and interest to assist with reading and with learning. She gave several other examples in which potential readers either "didn't care" or "didn't have the time" to help her out.

Like Millie and Diane, 32 year old Laura was not working at the time of the interviews, a situation which limited her contact with literate society. Laura described her world in terms of vulnerability and distrust. She had a few casual friends who would help her out with literacy tasks.

> The lady at the store told me about the tutor program. She knew I didn't know how to read or write, helped me with my money and everything. I told her I would like to get in the program, but the tutor didn't show up. Anyway, I was kinda glad to hear about it, to know there was still a chance.

Her "inner" network around literacy, comprised of relatives and friends, indicated a pattern of initial trust, betrayal, and subsequent distrust. Her husband's aunt was a case in point:

> I'm afraid to go to her for help (with reading) anymore because she tells everybody everything, I don't like that. I feel like she's cutting me down--like she's saying I don't take my kids anywhere--everywhere I go my kids go. I figure she's got her problems too so that's why I don't ask her for any more help. I don't trust her.

She told a story of abuse by her aunt and uncle as a child, and then subsequent life in a Chicago orphanage, where she never attended school. As an adult, Laura's main source of information on the world was her husband.

> I don't worry about getting information--my husband tells me sometimes. I try to understand his

> problems; I sit here and listen. He tells me about his job and I tell him I agree with him and I do. But I'm always afraid to tell him about my problems. Don't know if I don't trust him or what. I don't know, I just don't tell anybody my problems. I always keep them closed inside of me.

In Laura's case, dependency was not much of an issue, because she had few people she trusted enough to depend upon in the first place. Along with Diane and Millie, Laura tended to see the world from a perspective of "silence", in which she was voiceless and mindless (Belenky et al., 1985, 1986; Kazemak, 1988).

Reference Groups

If social networks are systems whereby illiterate (and low-literates) make the literate world work, reference groups help shape their view of how successful they can expect to be in maneuvering through literate society. Reference group theory is used to distinguish how "people act in a social frame of reference yielded by the groups of which they are a part...they frequently orient themselves to groups *other than their own* in shaping their behavior and evaluations" (Merton, 1957, p. 233). Gooderham (1987) found that participation in adult education activities could be explained partly through normative reference group orientation--"the group from which a person takes standards, attitudes and values"--and partly through comparative reference group orientation--"the group whose situation or attributes a person contrasts with personal ones and must inevitably entail some measure of relative deprivation" (p. 142). Both normative and comparative reference groups can effect self-concept and motivation around literacy. In the study on the Flathead reservation, relevant reference groups included relatives, respected community members, and co-workers. Some of these groups were important to low-literates adults during their childhood, others were more important now, as illustrated by the following examples.

John's ideas about education were shaped by normative reference groups in his childhood, many of whom were respected tribal elders with little education. In contrast, his present social network included a number of highly educated teachers throughout the reservation. John attributed his interest in tradition and his disinterest in literacy to the elders around him as a child.

> When I was growing up, most of the people I was with was 10, 20, 30 years older than me. And a good share of them didn't read or write. Third, fourth, fifth, seventh grade education and they were making it. I know a guy who was a millionaire about four times and he didn't read or write until after he became a millionaire.

This normative reference group, people who had "made it" despite illiteracy, influenced John as an adult. He contrasted his ability to hunt to provide for his family with abilities of his more educated friends.

> One guy from up at the college and his boy came up to the house and got stuck in the mud. My dad called them "educated idiots", because they didn't know how to get unstuck. A scary part of life is if all at once, something came down where there was no more work or money for these people, they would freak out. If they can't go to the store and get it, that would freak them out. Whereas me, it wouldn't because I'm already in that situation.

John's story parallels Fingeret's (1982) findings of illiterate adults' fear of being seen as "educated fools", of losing their place in the fabric of social life. Common sense knowledge is legitimate, and is contrasted with the abstract "education" of highly literate adults that leads to prestigious jobs, but doesn't help in concrete situations, i.e., "getting unstuck".

In Jeff's case, illiterate co-workers formed a normative reference group. Jeff shared with them values and attitudes about how one goes about helping friends.

> I thought I was a lone ranger 'til I met John. I never knew he didn't know how to read. We were down at the powwow, he wanted to write a check, asked me, "Jeff, would you write a check?" I said, "I don't know how to write one," he said, "I don't either." Kind of beat around the bush and both admitted we don't know how to read. Good to find out I wasn't the only guy here who was a dummy.

Even though many of the Native Americans on the reservation had known each other most of their lives, it was difficult for respondents to identify others with reading and writing problems. I later asked Jeff about others he knew besides John.

> There's quite a few, even Dan, he can't hardly read sometimes. I don't really know that, but his wife is always doing the paperwork. But there's quite a few people around here who can't read or write, especially down there where I come from, the pole yard.

Later still, he stated that he just knew one other person who could not read besides John:

> Just one, "Rambo", but of course we don't say anything to each other. That's very touchy with anybody, especially these guys who are morons

like me, that's very touchy. They'd sooner hit you first then ask later.

Illiteracy created a kind of solidarity among those who shared its stigma. Yet, the reciprocal nature of interactions around literacy meant that respect for individuals was paramount. Respect in this case meant not revealing one's lack of reading ability to anyone unless it was absolute necessary, such as when one is forced to admit he cannot write a check.

For Ralph, the significant reference group around literacy was comprised of family members. Even though his mother, brothers and a sister were all highly literate, he did not compare himself favorably with their standard of literacy.

> I can't place myself in that family. My mother is sharp, she has a B.A., my brother has a M.A. and is a school counselor. As a kid, I tried to read their textbooks from college--that's why I'm interested in psychology. They're speed readers, can take a novel and read the whole think in one night--it's aggravating. They skip all the "is", "the", "but"; just go to the major points, from what I understand. My two other brothers and sister don't have reading problems either. I'm hoping the psychohypnosis will help me handle this.

This reference is in sharp contrast to the other low-literate respondents who identified parents and siblings as having literacy problems similar to theirs. But then, Ralph's association of reading difficulties with childhood trauma is an unusual case, different from reference group identification based on level of education or class. Families members were both a normative and comparative reference group for Ralph--they were the standard against which he compared his own abilities and found himself to be lacking.

The group from which Millie adopted literacy standards consisted of an illiterate brother and father, and her literate husband. She talked of her demoralizing experiences as a child in special education classes:

> They didn't care, and I got a brother who's now 23 years old, just like me, doesn't know how to read and write. He's in jail now. They passed him every damn year too.
>
> Just found out from my mother that my father couldn't read. That surprised me, he was always looking through the newspaper. My husband was gonna be a priest, but found out he couldn't take it. He's got more on the ball than I do.

Millie felt a certain affinity with her brother, who shared her miserable school experiences. The emotional context around literacy is anger at "them", those in the system who would not help. Literate people like her husband are smarter than she. Millie wanted help in getting past her literacy problems but felt powerless--others were either as illiterate as she, "had more on the ball", or conspired against her progress.

Her anger extended to her step-son, giving the impression that the reference group around literacy was being extended yet another generation.

> The older boy gets mad at me 'cause I yell at him, and he's got all F's every year in math, and only good grades he gets are in gym and industrial arts. I said, "you don't realize you have to have education now to get a job. Look at me, I'm 28 years old and I can't read or nothin'. He's always talking about joining the army--you even have to have an education to join the army now. He says I'm always bitching at him, but he never brings any homework home, never. Then my husband jumps down my throat 'cause I'm always yelling at him. What's gonna become of him if he doesn't learn? But he just don't try; all he wants to do is run.

Parents with few literacy skills are often unable to model literate behavior at home. Children who never see an adult incorporating information from written materials into their value or behavior patterns are less likely to perform well in school or use text autonomously outside of school situations (Heath, 1986). Parents like Millie are left to haranguing their offspring about the values of education--yet these benefits are never demonstrated.

Discussion

Looking at the dimensions of balance and satisfaction led to a better understanding of the underlying dynamics of social exchange that foster literacy. Low-literate adults describing balance and satisfaction in their social networks implied that the emotional climate around literacy was positive. Assistance with reading and writing tasks was given freely--or the poor reader felt it would be provided if necessary--in an atmosphere of trust and mutual respect. Receiving the needed help with literacy tasks was not necessarily enough, however: Both Jake and Diane both described situations in which others read and wrote for them, and they provided services to their readers in return. But beyond the surface reciprocity in these exchanges were Jake's basic dislike for his readers, and Diane's feelings of unworthiness for the help she received.

Describing "balance" in positive terms does not suggest that "imbalance" is negative. Although John was dependent upon his wife/reader for reading and

described no reciprocal services, he felt he was worthy of receiving help and described a stable relationship with his wife. The relationship around literacy was imbalanced, yet it served his needs for both technical and emotional support. On the other hand, other low-literate adults such as Ronald and Jill were unsatisfied with dependency on their spouses. Yet, like John, they described their marriages as basically healthy, giving them the strength to grow as individuals. Once again, relationships characterized by stability and mutual respect proved important in how low-literates perceived the process and outcomes of support for literacy. In contrast, those low-literate adults who had neither stability, respect, nor trust within their literacy networks were likely to get no help with reading and writing. Although both Laura and Diane sought assistance from their spouses, none was forthcoming. In essence, no exchange--either reciprocal or dependent--took place around literacy.

The level of intimacy between low-literate and reader and gender appeared to be of some significance in determining the nature of exchange. Most of the intimate relationships described were between husbands and wives. Expectations of readers' and non-reader' roles differed, however, depending upon whether the husband or wife needed help with literacy. In the cases of Ralph and John, there was little question as to whether helping with literacy was a suitable task for a wife. Literacy appeared to be viewed as part of wives' "status duties" (Gouldner, 1960), that is, reading for an illiterate spouse was one of the many responsibilities of a good wife in the home. An exception was Ronald, who sought "independence" in performing literacy tasks not only because dependency meant losing control over what he wanted to say, but also because of his concern about the burden writing letters to his congregation put on his wife. The psychic costs of receiving help in a reciprocal arrangement, manifested by guilt, were beginning to outweigh the benefits received (Krishnan, 1988).

The kinds of exchange described by women in literacy networks ranged from independence to dependence. Sheila depicted a relationship based on comparative equality with her husband: She asked for specific help with reading and writing tasks--only those which she could not figure out on her own--and he gave it. Other women suggested the importance of "finding a voice" (Belenky et al., 1985, 1986) in their relationships with their husbands, who acted as either actual or potential readers. This voice would allow them to break through a stance of silence in which they doubted their abilities to hear and understand the words of others and to acquire knowledge. "Naming" their world and the nature of their oppression (Freire, 1970) was a first step in finding that voice. Jill had started on this journey by questioning her reasons for elevating her husband's status within their relationship. She recognized her role in a marital relationship as a matter of choice rather than following "conventions of femininity" which equated goodness with self-satrifice (Gilligan, 1980). Writing for herself was a long term goal. More immediate was exploring the roots of her dependency.

A stark contrast to the basically sound relationship between Jill and her husband was Laura's fear of telling her husband her thoughts and Millie's husband's refusal to help with her reading. The plea of Kathleen Rockhill (1987) over the situation of Spanish-speaking illiterate women in the U.S. would appear to be equally true for women who wanted to learn to read and write in English:

> Who hears the cries of longing, sealed within the confines of four walls, exhausted by overwork and worry...of women with no right to speak in public, let alone in their own homes? (p. 154)

Three of the women in this study did not venture much outside the home, partly out of fear of a husband's retaliation. In contrast, both men and women who went to work every day expressed more of a sense of potency, in terms of creating, maintaining and destroying the social world (Fingeret, 1982). The work environment necessitated communication, some of it written. Working men in this study were the ones to describe how they got by in the literate world, often with the assistance of trusted male coworkers as well as supportive wives.

Low-literates' identification or disassociation with particular reference groups convinced them that literacy was either necessary or unnecessary. In general, there was a greater likelihood that growing up in low-literate families led to the acceptance of low-literacy as the way things were, not something that could be easily changed.

There were some conflicting reactions to low-literate study participants' self-comparisons with families in childhood. John had a positive association with illiterate adults within the tribe during his childhood. These were people who, despite the prejudices against illiterates, had made it and were viewed as knowledgeable and wise people. This association had clearly helped John to view himself as a person worth of respect, and to see those with little common sense and a lot of education as "educated idiots", although the latter attitude may have contained an element of defensiveness. While Ralph also identified with the norm of his childhood--highly literate adults--he did not compare himself

favorably with this group. A strong feeling that his literacy abilities should equal those of his family led him to explore reasons why he had not been able to learn to read and write as easily as they had. It would seem that reference groups can either reinforce low-literates image of their present abilities, or challenge them to acquire greater literacy skills so they will more closely resemble significant others.

DIMENSIONS OF COMMUNITY

The Flathead Reservation

The Flathead Reservation was selected as a study site because it offered a small, bicultural community in which to study low-literacy perspective. There were nine small towns within reservation boundaries, which spanned portions of four counties. The total area of the reservation was almost 2000 square miles of picturesque land on the western slope of the Continental Divide. The population of enrolled Tribal members was close to 6,000; however, there were almost 16,000 non-Indians living on the reservation.

Tribal members in the community have deep roots in western Montana, in many cases going back long before the establishment of the reservation in 1855. Yet migration is a reality for reservation life as it is for mainstream America. Many Tribal members told me of their years spent working or going to school in other Montana communities or in other states, including Arizona, California and Alaska. The Native American population on the reservation also included more recent arrivals from other tribes and reservations. The non-native community on the reservation included those people who had lived for several generations in the area and those who had arrived in recent years from other parts of the U.S.. Many were attracted as much by the scenic beauty of western Montana and opportunities for hunting and fishing as they were by employment opportunities.

The 27 study participants worked in a variety of non-technical jobs: logging, custodial, hospital orderly, small manufacture, daycare, restaurant help, and house cleaning, in order of frequency. In most of these jobs, reading was either not a requirement or was easy to circumvent.

Studying the Community

There is little agreement among adult educators as to what constitutes a "social context" of learning (Apple, 1982; Bogden, 1982; Boshier, 1973; Bowles & Gintis, 1976; Collins, 1977; Knowles, 1980). Specific community contexts, for example, educational, commercial, legal, political, or employment, could be important to the perspective of low literate adults on literacy. Naturalistic inquiry implies that these contexts could not be determined a priori, before immersion in the community and concomitant interviews with key informants and low literate respondents.

The grounded theory methodology of this study allowed for dimensions of community important to the formation of literacy perspective to emerge from interviews. Key questions guiding inquiry included the following:

1. Which community institutions are important in shaping individual's perspectives on literacy?
2. How do dimensions of time (past, present, and future) interact with elements of social context to affect literacy perspective?

Communities have been considered valuable for the study of literacy for several reasons. Heath (1983) believed communities to be appropriate for the study of education because of their interaction with educational institutions and inclusion of such enculturation forces as families, churches, and voluntary organizations apart from schools. She chose black and white working class communities in the Piedmont area of North and South Carolina as a setting for the study of language practices. Fingeret (1982) viewed community as the coexistence of geographic neighborhoods and social networks; a web of social relations, security and support in which primary, consistent face-to-face interaction took place. In her study of illiterate adults in a northeastern American city, the maintenance of a social network proved critical in illiterates' decisions to improve reading and writing skills. Both of these studies emphasized interaction and a holistic approach that allowed for the emergence of the "multiple realities" characterizing the naturalist paradigm.

This section will focus on two dimensions of community which emerged as important in forming the literacy perspective of low literate respondents: (a) the primary and secondary schools which had shaped respondents' views of their literacy abilities as children, including specific educational programs for children with reading problems, and (b) local sources of employment mentioned by respondents; in particular their reactions to workers' literacy problems.

Past Schooling

Respondents' experiences with the school system as children profoundly influenced their views on their abilities as readers and writers, as learners, and as competent adults. Most of the Native American respondents attended parochial or public schools on the reservation. One parochial school in particular

had a reputation for strict discipline, corroborated by study participants' recall of the years they were taught by the nuns. Some of the Native respondents and most of the non-natives had attended schools out of state as well.

It became clear that the American public school, whether on the reservation or off, was a culture apart from cultures based on ethnicity. Both Native Americans and non-natives expressed similar reactions to the schooling experience. These reactions are examined in the next sections.

Some study participants talked of school as a trade-off either in terms of their experiences with school as children or of what it would be like now as adults to return. For Jill, time spent at school was time spent away from other valued activities.

> Right now, if I went back to school, I would think, "okay, get home from school, get supper, do dishes, clean up the kitchen. Then where do I put my studying time? Get back from bowling, start studying at 2:00 in the morning? This is where my thoughts are. I don't want to study! I'd rather sit and crochet, embroider and sew.

Jill wanted to improve her "English" skills, but not if it meant sacrificing time away from her husband and the remaining child at home. For John, school turned out to be a conflicting force, a system that would eventually force him to turn away from his Indian heritage. Dropping out, as John did, was one way of expressing anger at a system which he felt excluded him. However, if you stayed in a school system which threatened your dignity, measures were necessary to maintain self-respect. Ronald described them as follows:

> I just couldn't understand what was being said, couldn't understand the words. In 5th grade I was lost. We had spelling contests; I'd get up and read something; couldn't do it, so got myself out of it some way. I mainly rebelled, said "no" rather than making a fool of myself. Teachers just didn't know what was going on with me. I think they were getting tired of me. So I started to go bad--drink, do drugs, ran away from home, spent time in jail as a juvenile.

These trade-offs were not all equal in their consequences for the student. An adult has the option of deciding about whether the time away from family and enjoyable activities is worth the effort involved in a school activity. A child who is required to attend school, however, may have to take drastic measures when it becomes clear that the price for staying in school is the sacrifice of dignity.

The "warehousing" of children and young adults by schools is a topic much discussed by analysts of the social rationales of educational institutions in America (Bowles & Gintis, 1976). However, social science researchers are not the only ones who express concern that the social management of children is often of more concern to educators than learning--adults reflecting upon their experiences as children in school may question the motives of the "system". Marty had strong ideas on why he was mandated to attend school.

> School is where they just tell you it's easier to get work if you have a diploma to keep you in school. Teachers say "Yeah, but if you have a diploma you can get work easier and they'll hire a high school student over a drop-out." But Job Service or anything doesn't ask if you finished high school. All's they want is someone who'll work. So in a way it was worth it, in another way it wasn't. I was basically in school for classes when I should have been out looking for a job. They don't want to see you out on the street.

For Marty, "they" were part of a system which placed children in a lock-step system for the good of a society which was not ready to deal with large numbers of unemployed youth. In Marty's reality, experience was valued, not diplomas. Rick questioned another school practice--consistently passing poor readers to the next grade.

> In grade school, every year, I had to do math, science and English and it was hard. I was failing in them grades. Every year they'd just pass me, and I thought I shouldn't have been passed if I didn't do the work. I couldn't do the work and they'd just pass me and pass me. Only class I was good in was physical education. I just got tired and quit.

Rick's comments illustrate what was perhaps the least tolerable aspect of the school system for many low-literate study participants; that is, the knowledge that despite their obvious inability to read or write at the level required for a particular primary or secondary school level, they were passed on year after year. Being passed on was for some participants the ultimate symbol of teachers' "not caring" about their students. Millie still expressed anger as she recalled her treatment by teachers:

> They didn't care, and I got a brother who's 23 years old, just like me, doesn't know how to read and write. They passed him every damn year too.

Ralph echoed Millie's feelings:

> I got to the point in primary school where I didn't care--I knew I was going to pass. I always took the reading of a year or two behind my grade level. Quitting high school hadn't entered my mind until I was told I'd have to wait four years to get into a Special Ed class. So I quit

and joined the Navy.

Children who are considered poor readers discover early that schools value the diagnostic process. Testing for reading proficiency may be handled by a classroom teacher, reading specialist, school psychologist, or counselor. While the expressed goal of these occupations and assessment tools is helping students, what children often remember are the outcomes of assessment: labels and categories which supposedly represent their ability level, and the programs which purport to meet the needs of students with a particular diagnosis. For example, Millie expressed bitterness over the actions of teachers during her schooling years and the ensuing consequences:

> I went clear through 8th grade and they didn't know I didn't know how to read and write. All they did was show me pictures of animals and stuff, and they figured that since I knew them, there was nothing wrong with me. Pictures of cows and horses, stuff like that. Who ain't gonna know shit like that?

Children are not passive objects in a testing situation, but question the meaning of the test as well as the results. For Millie, it was ironic that they didn't seem to know that she couldn't read or write, and then gave her a test that had nothing to do with reading or writing. The hidden plea for teachers to do something about what was clearly "wrong" to Millie went unheeded.

Special Education students like Millie and Lavonne were particularly likely to find themselves the objects of testing activities which had little logical connection to subsequent treatment. I asked Lavonne if the teachers were of any help after she had been diagnosed as needing Special Education classes:

> No. They knew I couldn't read, so I'd get to correct papers while the other kids did their work, go ditto off sheets. I didn't have to stay in class. Now we're paying for it, I and my sister, 'cause we couldn't read that good. They put us in Special Ed where they was really handicapped. We was just more or less helping the teacher with the handicapped kids with their colors, their names, their ABC's. Then I went to the cafeteria, do the dishes, help serve.

The diagnosis was "couldn't read", but the "treatment" consisted of running errands for the teacher and helping students who were labelled "handicapped" with elementary tasks, some of which involved reading. Lastly, being in Special Ed meant, at least for Lavonne, working for the school without pay. Diagnosis had some positive results for a few participants. For Jake, the determination of "dyslexia" in primary school produced mixed feelings:

> I don't remember if I felt worse before I knew or after because I'd go home with all this homework, I could never finish it in school, then I'd go home with it couldn't understand it. I was starting to think I was retarded or slow or something. Afterwards I was going to these (learning disabled group) classes. I don't know if it was worse before or after being diagnosed. Guess it's better than being retarded. They put me in classes that were a lot easier. I learned how to type, do things different ways after I was diagnosed.

Jake accepted the "dyslexic" label as an adult, and it reassured him, as it had in childhood, that he was "normal". A study of inner-city "learning disabled" children indicated that such children were originally referred to special education classes because they were behind in reading (Bogdan, 1982, McGill-Franzen, 1987). By the time they were teenagers, however, they had been relabeled as learning-disabled, and there was no longer any expectation they would learn to read; students could get through high school and eventually graduate without any particular expectation that they become literate. In essence, the learning disabled label allowed students to function socially in school, an environment closed to those who are only "illiterate" (McGill-Franzen, 1987).

Daryl talked about the myriad of reading programs he encountered in high school.

> They really screwed me up. I went through so many teachers. I mean, they'd start me on one program, then a new teacher would come in and start on another one. I wanted to learn but I was tired of going through different teachers. I'd be working good, getting into it, then they would change.

Bogdan's (1982) study of "learning disabled" children revealed that a number of students in special classes had had their categorization changed three or four times throughout their school careers. Over the past two decades, failure to learn to read has been increasing viewed as a problem of disability rather than socioeconomic disadvantage (McGill-Franzen, 1987). Teachers are the consumers of new reading programs developed by curriculum designers generally outside of the local school. Students are the objects of the program, the vehicle by which teaching "innovations" are tested. The questioning of students as to why and how learning should take place in a certain way is too often ignored.

Brad had positive memories of the "trailer" where special education classes took place.

> If you needed help in any of your subjects, they would take you out there for an hour a day

and work with you. When I first went out there I was a sophomore and my reading ability was somewhere around the 6th grade level. And by the time I graduated from high school, I was reading where I should have been.

(What did they do?) Made us read books and then we had tests on them, they gave us questions. Helped us with math, but mostly for reading. That's what I was there for. (How was it different from other classes?) Out in the trailer, there wasn't so many students, compared with English where there was one teacher for 30 students; in the trailer there was one for about three to five. They could spend more time working with you.

Unlike other participants who described special education classes, Brad "knew what he was there for", i.e., reading problems. Also, he started special education classes in high school and thus was older than those who first encountered the "special" label given to poor readers as grade school students.

Ralph was aware of how schools diagnose children and adults. Enrolled in a vocational rehabilitation program which would teach him how to read as well as provide other assistance, he described his predicament:

I've been marked as a person with a learning disability, but there's more to it--mental childhood stress. So I'm looking for psychohypnosis. Four doctors suggested I try this...I know it has to do with the fire I went through when I was five years old.

Feel like I'm between a rock and a hard spot, marked average intelligence and with a learning disability. But I think it's related to this "right brain, left brain" stuff. I saw this on TV...I'm OK with my hands, but not my mind, the physical side is fine, but not the mental side. It sounds feasible to me.

For Ralph, the label "learning disabled" did not explain his reading difficulties. "Mental childhood stress", however, had meaning for him, and could be linked to a course of action--seeking psychohypnosis--which had the potential of removing barriers to learning. Learning to navigate through the experts, labels, and potential treatments became as important a competency as reading and writing.

The reaction of adult low-literates to the teacher's role in past education ranged from appreciation to anger and bitterness. Jill spoke highly of her teacher in dental assistant training and of teachers who had tried to helped her as a child, although having sympathetic teachers did not necessarily lead to greater learning.

She let you know work had to be done, with sternness and a loving manner. She was a friend if we wanted one. One time I got a low grade and she let me take it over.

My 6th grade teacher was a cousin, and 7th grade teacher was a cousin. They helped me get by with what I could. I had a problem with other kids in the room, who knew they were related to me. (How did they help?) Just by giving me extra assignments, easier ones. "Go and work these and bring in with the other homework." It seemed easy, but I never did comprehend.

Daryl described a situation where he felt on equal footing with a reading teacher. Although they didn't agree all the time, he felt she was a worthy adversary.

Best reading program that came along is the one that Miss Rand had. Me and her, we went at it tooth and nail quite a few times 'cause she always had to be right. I didn't quite feel that way about a lot of things--I let her know, but I did learn quite a lot from her. She was really good, really an opinionated person, but probably the best teacher I had because she was from back East and was trained in dyslexia and she put on a program that really helped in my senior year. I came up quite a ways in grade level.

Several participants echoed Daryl's belief that teachers from outside rural Montana were necessarily better than teachers trained within the state. Ronald also shared the conviction that a good teacher was someone who had received special training in a learning disability like dyslexia.

Sheila's memory of how teachers reacted to her reading problem was different. She painted a picture of a vindictive, hostile teacher.

When I first went to high school in this town, I went to all the teachers and said "don't call me to read, 'cause I won't read." Told the social studies teacher that, and he just looked at me and said "yeah, right, you're the first one I'm gonna call." So I got into class, third day of school and sure enough, first thing he did was call on me to read. So I finally threw the book at him and told him to go to hell. Just went home.

When you don't try, they just let you go, but if you start trying to get involved in anything down there like science--I love science, I think it's neat--We were gonna dissect, think it was a "cowpillar", and the teacher had some long word that had 15 letters in it and he spelt it really fast and I asked "how do you spell it?" and he looked at me like "It really makes a difference to you, Sheila". And I tried, then he just slapped me down.

Sheila's reading problem did not stop her from enjoying science class, but she got no support from a teacher who linked low achievement in one area with all other academic areas, and who appeared malicious as well. Like Sheila, Millie still felt angry when she remembered one of her grade school teachers.

> My 5th grade teacher figured there was something wrong, but nobody ever done anything until I got into 8th grade. Then they put me in Special Ed. It was just as bad with those teachers; I'd ask them a question and they told me to figure it out for myself and it made me mad and I got up and walked out and never went back. If they weren't gonna help me, why be there?

I asked Lavonne about her experiences with Special Education teachers:

> If the teachers and everybody else didn't care, why should I? Both of us, I and my sister, got teased a lot, 'specially when they first put us in there. It was embarrassing. After you've been called dumb and stupid, you start to believe it.

Teachers were the final judges of whether a person could learn, and the student had to accept the worth assigned to his or her abilities. Lavonne, Millie, Ralph and John all took similar drastic measures to protest teachers and a system that they felt excluded from--they "voted with their feet", an action tolerated when taken by adult learners, but categorized as "drop-out" when undertaken by children.

Literacy and the Work Place

Businesses on the reservation providing employment for study participants included the forest industry (fire fighting), sawmills, small electronics industries, a bee box and toy assembly firm, daycare programs, nursing homes, restaurants and motels. Several women also cleaned houses for a living. In order to find out how literacy fit in with other abilities of a "good worker", I talked with managers of 10 local industries (mentioned by study participants) who were familiar with the specific requirements of jobs in that particular business. No reference was made to specific individuals. Rather, questions focused on the qualities of a good worker, particular job categories and the literacy tasks required for each one, problems encountered when literacy was insufficient, and employer/employee solutions.

Results, displayed in Table 1, corroborated participants' emphasis on the importance of prior experience in performing well on the job.

When first asked what was important to perform well on the job, employers cited workers' previous experience (both working in general and in the same or related job), good work habits, common sense, confidence and a positive attitude, and appropriate motor skills. Only when I asked specifically about literacy did it become a topic of discussion.

Most literacy tasks were of a charting nature: reading single words or sentences and then checking appropriate categories of information, or writing numbers or brief words after a cue question. Other writing tasks included brief labelling descriptions and writing short reports and notes. Workers read names, schedules, recipes, manuals, and lists--all of which occurred with enough regularity so that they were easy to remember.

Problems arose for those working with Headstart who could not read well enough to read to the children--a task required of cooks and aides as well as teachers. Reading stories, especially unfamiliar stories, is more complicated than recognizing formulaic text, such as a schedule. One Headstart worker's contract was not renewed when her employers discovered she couldn't read. This was the only instance reported of anyone losing a job because of the inability to read or write for a particular task.

Several employers interviewed reported that "education", not literacy per se, made the difference in workers' performance. The manager of the bee box industry felt more educated employees could follow instructions better. On the other hand, Headstart supervisors felt better educated employees were more able to act as leaders in the day care setting and to feel comfortable trying out new ideas.

Employers described several alternatives to firing employees with reading problems. One means of circumventing literacy was for employers to present information critical to workplace operations in verbal as well as in written form--more to reinforce the message than to reach low-literate workers. In other instances, more literate workers, including bosses, would help those with problems. Bart and Jeff cited instances in which bosses helped with simple reports and record-keeping. They indicated that trust was a key aspect of this relationship.

Less trusting relationships between participants and their bosses around literacy were characterized by flattering the potential reader into helping, or by learning to deal with the employer's hostility around the issue of literacy. Ralph's boss, also his teacher in an electrical course, had originally told him that they would "work together" on Ralph's literacy problem, but after Ralph confronted him on some unethical

Table 1

Employer's Views on Skills Needed for Job

Employers Want from Workers:	Literacy Tasks:	Problems and Solutions:
Belief in program, experience, ability to respond to practical situations (Headstart, Daycare)	Fill out menu sheets, read recipes, write records on kids, notes to parents, read to children	One-third had reading problems, needed help from supervisor. The more education, the better able to "negotiate, lead, give"
Dependability, good attendance, experience, eye-hand coordination (2 electronics industries)	Lead persons: write reports, read and understand procedures manual; others on line: fill in order numbers, parts received	Literacy problems surfaced when workers refused promotion (1 industry only)
Previous experience, good attendance, other "simple judgement" abilities; cleanliness, confidence, ability to "sell themselves" (2 nursing homes)	Read names of patients, schedules, instructions (can be done verbally); fill out charts of daily tasks, incident reports	Several with problems--aides or spouses help; workers invent own coding system or receive verbal instructions
Past experience, "practical knowledge", pleasant personality (2 lumber industries)	Read tape measures, fill out report forms, make inventory tags, write description of bundles ("just putting speech down on paper"); read safety rules	Seldom--one person had to have others read rules for him
Experience, sorting abilities, "quick thinking" abilities (Bee box industry)	Measurement skills, read packing lists.	Seldom; but with more education, better able to follow instructions
Experience (fire-fighting), dependability, prior training (Forest Service)	Crew bosses: inventory equipment, performance evaluation for each fire fighter (no literacy required for fire fighters)	Rarely; crew bosses explain verbally to fire fighters

teaching practices, the relationships changed: "He then started asking me to take my exams from my notes, knowing well that I couldn't take notes."

Several male respondents gave examples of alternate strategies they would use to complement whatever reading and writing skills needed for the job. John got his students to do the "paperwork" for him in class. Jeff took great pride in the fact that most of his bosses did not know he couldn't read. He developed a system that enabled him keep track of the information necessary to take care of patients. As he described his system to me, he showed me the diagrams he kept in his notebook:

> When I was working at the rest home, I'd draw pictures. There'd be two patients, two beds--A by the door, B by the window. On a Monday, I had the patients listed: one needed a shave, another needed a bath, another needed bed changed everyday, then medicine--that one was pretty hard, don't remember now how I did it. I had 'em all numbered. Each man had different little things. These numbers are different people. I had a backup book back at the house in case I lost my chart. Each room and five or six men, A, B, C, etc. The whole deal would be about one whole page and each guy had his own routine.

In other words, Jeff invented a system of symbols that he used as others would use the alphabet. He used a similar strategy when he worked at a post and pole yard: drawing different sizes of rectangles to represent the various lengths of poles, and then writing in the numerical dimensions beside each one, and finally filling in charts with technical terms like "tree props" and "standards". The latter he memorized, after copying them off a co-worker's chart. He would put an example of the report form

in his billfold and refer to it when it came to fill out reports.

> Come time to do paper work, I'd say, "you guys go ahead, I'm gonna do my paperwork", then quit work half hour, 20 minutes ahead of time. Then I'd take out my paper, unroll it--this goes here, that goes there--pretty soon, I had it memorized. I knew what went where, what went out, what had to be returned.

While Jeff described passing as literate as a challenge, Ronald found the strategies necessary to order custodial supplies without reading to be stressful.

> I would have a book of all the materials that janitors used. If I knew that I needed a certain kind of solution for a carpet, I made sure I had the name for the product somewhere where I would know where it's at so when it came time to order, I could just go in and copy it down. And I did this with everything I had to do with custodian work. It just took a long time to do it is all and I just would be tired of it.
>
> I would get me a book on all the custodian stuff used for the school and would circle everything I knew I had to order every week or month, and I knew where it was. I had my own book there and when it came time for ordering I could just copy out of the book. It gets tiring. It's a lot more work because you got to copy down every word, every letter, spell it just right. If I knew how to spell, I wouldn't have to look for the word and how to spell it; I would know.

Even though Ronald and Jeff both talked of "not being able to read", they could decode and encode sufficiently to order supplies and keep records. Recent research on actual workplace literacy abilities of midlevel literates (reading at grade levels 5 through 9) indicates that such individuals achieve far more than their performance on school-oriented reading tests would indicate (Mikulecky, 1982; Rosow and Zager, 1988). They incorporate their knowledge of the task into the reading process, use a variety of problem solving strategies in reading, and read for direct application. Jeff and Ronald were low-literate, but tackled reading and writing necessary for their jobs in a manner similar to those categorized as midlevel literates.

Discussion

The observation that school constitutes a culture of its own is not new (Coe, 1986; De Castell & Luke, 1986; Giroux & McLaren, 1987)). When they remembered their days in school, both Native American and non-native study participants described an environment where the social aspects of schooling took precedence over cognitive and learning dimensions. There was clearly a norm operating in schools; the "average" student was able to read and write to the teacher's satisfaction. Poor readers learned that reading with relative difficulty was more than finding communication through the text medium problematic. The phenomenon of "poor reading" necessitated an investigation into the psychological and physical defects that could explain below average performance.

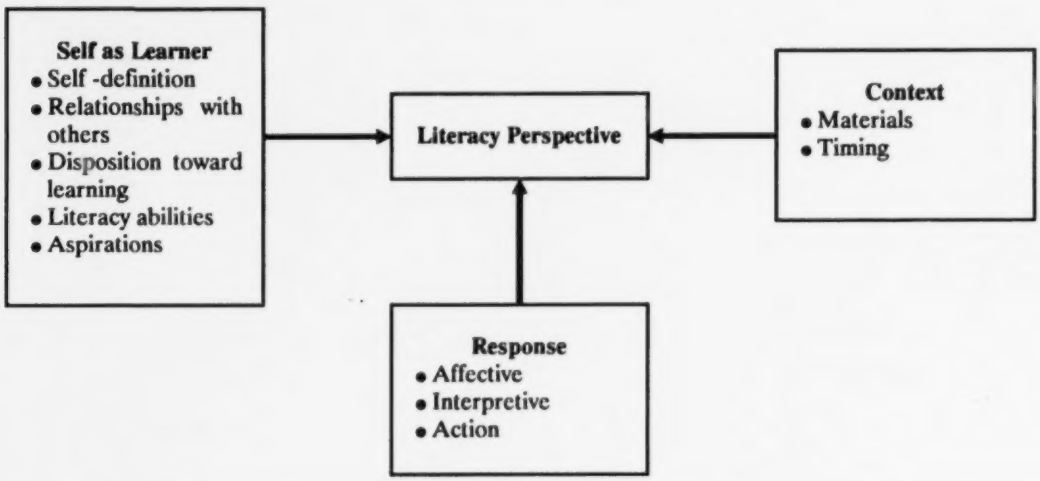
Low-literate adults tried as children, and in many cases are still trying to make sense of the school system. Schools were supposed to educate, to help people learn, but the unstated agendas of social control and creation of model citizens came through clearly to young students who realized they did not fit. A climate of competition permeated the classroom: study participants regularly compared their literacy performance both as children and as adults to age group and grade level norms; they talked of how they fared in such schooling rites as spelling contests. Participants learned as children to defend their egos against the constant inquiries into what was "wrong" with them as learners, rather than focusing on "task-involving" strategies that would actually lead to increased reading and writing ability (Winograd, 1987).

Low literates recounted similar cycles throughout their school careers: the discovery and labelling of "poor" reading and writing performance, channelling into remediation programs, followed by either success or, more likely, failure. Failure to improve literacy frequently led to rediagnosis and placement into remaining programs available for poor readers. Each intervention by teachers and psychologists led the student into greater questioning of his or her worth--not only as readers but as persons. The stigma of failure had been instigated (Ungerleider, 1985). A study of Native American education by Fuchs and Havighurst (1972) indicated that many parents felt teachers let Indian students "slide by" until they were 16. Similar findings emerged from the Flathead study: Native American study participants as well as a few non-natives talked of being ignored and "passed on" by the schools, in spite of the obvious fact that they were not learning to read and write.

Adults enter the workplace after much of their personality has been formed by childhoods spent in schools. They have an idea of their strong points and weak points, of what will get them ahead and what is less important. In general, there was agreement between employers and study participants as to what mattered on the job: good work habits, previous experience, learning by observation and by doing.

Figure 2

A Model of Literacy Perspective Among Low-Literate Adults



Literacy was a "tool" which could be circumvented or supplemented in the performance of a particular task. Adults knew who worked well and who did not. Both bosses and coworkers looked first at the individual worker and secondarily at his or her literacy status. "Illiteracy" meant that you could not easily perform certain tasks, not that you were deficient as a person. Education rather than literacy was valued because it helped people to think more critically about their jobs.

TOWARD A MODEL OF LITERACY PERSPECTIVE

Study participants who had explored the roots and present reality of their disposition toward learning, their relations with others around learning and literacy, and the relative need for literacy in their lives were those who defined most clearly a perspective on literacy. The particular perspective of a low-literate individual toward literacy can be viewed as a composite of personality traits and social forces. These traits and forces are outlined below:

1. Self as learner. Dimensions of self which affect learning include the following:

Self-definition--personality factors such as values and openness;

Relationships with others--factors such as trust, dependency, anger, hostility, or degree of satisfaction;

Disposition toward learning--views on learning through experience, passing on knowledge, whether or not learning should be goal-specific; heavily influenced by past learning experiences;

Literacy abilities--of situations in which low-literate adults read and write on their own and those situations in which they need help;

Aspirations--particular work or social objectives (either actual or potential) which low-literates feel will best be attained by learning to read and write.

2. Literacy context. Contextual factors include:

Material--what low-literate adults actually read and write (books, advertisements, letters, etc.).

Timing--both chronological and situational time period in which literacy becomes relevant to the low-literate individual;

3. Response. Consists of the particular attitudes a low-literate individual brings along with various dimensions of self and the literacy context:

Affective responses--for example, anger and hostility or enthusiasm and challenge;

Interpretive responses--individuals reflect upon and try to make sense of past experiences with literacy to get direction for the future;

Action responses--taking steps to further learning about literacy or about self.

A model of the interrelationship of attributes of the self as learner, literacy context, and response to literacy come together to form a perspective on literacy is illustrated in Figure 2.

In conversations with respondents, it was clear

that talk of literacy was integrally linked to emotional, social, and work concerns. Decisions made about literacy itself were affected by unique configurations of such forces, occurring in the past as well as in the present, or projected for the future. Most responses reflected an affective or emotional component, with some participants expressing only emotional responses. Others went further to interpret, or try to understand their feelings about literacy. In some cases, deliberate action followed an interpretation of personality traits and contextual forces affecting literacy. In others, interpretation was in itself an action step. Following are examples of these perspectives and some conclusions suggesting action on the part of adult educators.

Perspective 1: *Literacy is OK, but it's not for me--it's for others.*

Low-literate adults like John may have had experiences in childhood which convinced them that reading and writing were part and parcel of a dominant culture which had little or no value to their lives. Literacy is one side of a dichotomy; the other side is a more meaningful world where learning and life are integrated. Such a dichotomy demands a choice: you can choose the learning that leads to reading and writing, or the learning that revolves around work and social relationships, but the two do not go together.

Literacy educators need to break down the artificial walls between the generally accepted context of literacy learning--schools--and the learning that occurs in daily life. There is a role for teachers and other facilitators of learning out of school, but it must be rediscovered.

Perspective 2: *Literacy is part of a relationship I want to change.*

While low-literate adults like Jill may indeed want to learn to read and write better, literacy may be secondary to other more pressing learning needs. For example, a poor reader may want to establish sufficient trust with potential readers so that literacy tasks are accomplished, or so that literacy learning can begin. Low-literates may seek new helpers not associated with negative relationships, or group learning environments in which knowledge and assistance are available from a number of sources, not just one. Affective, interpretive, and action responses may all happen concurrently. However adult educators too often define certain populations of learners according to what they don't know: "Low-literate" adults can't read and write well, therefore, literacy skills are what they need and should want.

Literacy educators must learn to deal with the whole person, which includes the emotional and affective needs that tie individuals to others. Literacy is not necessarily what low-literate adults want to learn. Perhaps more important than what is actually learned is why learning takes place: Low-literate adults should be encouraged to reflect upon learning goals, to interpret forces in their lives that involve learning. More meaningful learning around relationships may be encouraged through discussion groups or personal counseling. Perhaps at some later date learning action would take the form of a concentrated effort to improve literacy skills, perhaps not.

Perspective 3: *Literacy is one more thing I'll never be able to get.*

For some low-literate learners, women in particular, the anger and hostility surrounding social relationships may preclude any exploration of the role of literacy in life. In other words, the affective response stops at anger, and never moves toward a more interpretive realm. Low-literate women such as Millie and Laura who seek greater autonomy may need to be encouraged and aided in obtaining assistance and establishing reciprocal relationships. Women who feel emotionally and physically cloistered need not only to establish trusting relationships with people who they can depend upon not to hurt them, but need also to establish contact with the outside world. In order to "find a voice" (Gilligan, 1982), women need the nourishment of a world they can enter into, one that is not frightening.

It seems critical that literacy educators take into account what may seem obvious in "real life": Individuals living in an environment of hostile and unsatisfying social relationships will have a difficult time getting the emotional and technical support they need to communicate through literacy. Multifaceted programs that provided counseling services as well as literacy education might be more responsive to the learner's most immediate needs, which may be sifting through relationships rather than learning to read and write. Literacy tutors who work one-to-one with poor readers should be advised that establishment of a trusting association may be antecedent to literacy education.

Perspective 4: *Literacy is critical for everything I want to do--but on my terms.*

A number of low-literate participants in this study talked of the powerlessness they felt as

elementary and secondary students learning how to read. For them, the classroom atmosphere was oppressive to the point that learning was not possible. As adults, they want more control over learning content and the environment in which learning occurs. They don't want to put up with tests that don't make sense or with teachers who thwart rather than help their learning efforts. Personal empowerment includes learning how to read and write and having a strong voice about the circumstances and timing in which learning occurs. It means closely examining all aspects of literacy education to incorporate shared responsibility for the design and structuring of learning.

Perspective 5: *Learning to read is easier than before, and fun; I can see progress and so can my family.*

Significant others can be critical in assisting low-literate adults with reading or writing tasks they cannot perform and in encouraging them to learn. For Ralph, as for Ronald, it was important that their progress in learning be shared by their wives. Literacy teachers and tutors can learn from the working relationships of low-literate adults and their readers. Probably the keystone of a functional reader-learner association is trust; low-literates without trusting relationships were not getting the necessary support around literacy tasks or other valued objectives. Participants with trusted readers were more likely to be communicating satisfactorily with the social world.

Trusted readers may be brought into literacy education either as tutors or just as moral support. Scheduling general interest classes that run parallel to literacy classes or encouraging both readers and low-literate adults to learn--either literacy or anything else--is one way of compensating for the isolation that potential learners may feel when contemplating literacy education. Adults who don't read well seek dignity in their learning environments and should be encouraged to bring in their talents--whether it be splitting firewood, advising newlyweds, or doing yard work--to literacy education. This is especially true for low-literates who valued reciprocity in their social networks. In summary, the opportunities for building on existing networks around literacy merit exploration.

Summary

The message from participants in the Flathead study is that prediction of particular variables comprising a readiness for literacy education may be futile: one goal of literacy research should be to discover the individual perspective on the role of learning in life, whether or not literacy plays a part in learning, and how an individual wants to learn to read and write. The core of literacy education is *learning*; indeed, Heath's (1983) phrase "reading to learn" summarizes what must be the stance of literacy educators toward learners. Literacy may be one of many means toward an end, and we cannot assume a common perspective on either the nature or worth of literacy itself. It is only through getting to know low-literate learners better that we will know what kinds of goals they seek to achieve, and what they feel should be learned towards these ends.

References

Apple, M. W. (1982). Reproduction and contradiction in education: An introduction. In M. W. Apple (Ed.). *Cultural and economic reproduction in education: Essays on class, ideology and the state*. London: Routledge & Kegan Paul.

Aslanian, C., & Brickell, H. (1980). *Americans in transition: Life changes as reasons for adult for adult learning*. New York: College Entrance Examination Board.

Belenky, M., Clinchy, B., Goldberger, N., & Taurule, J. (1985). Epistemological development and the politics of talk in family life. *Journal of Education, 167*(3), 9-27.

Belenky, M., Clinchy, B., Goldberger, N., & Taurule, J. (1986). *Women's ways of knowing: The development of self, voice, and mind*. New York: Basic Books.

Berger, P. (1976). In praise of particularity: The concept of mediating structures. *The Review of Politics, 38*(3), 399-410.

Blau, P. (1964). *Exchange and power in social life*. New York: John Wiley & Sons, Inc.

Bogdan, R. (1982). *Illiterate or learning disabled?: A symbolic interactionist approach to the social dimensions of reading and writing*. Unpublished manuscript.

Boshier, R. (1973). Educational participation and dropout: A theoretical model. *Adult Education, 21*, 3-26.

Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America*. London: Routledge & Kegan Paul.

Boyd, R. D., & Martin, L. G. (1984). A methodology for the analysis of the psychosocial profiles of low literate adults. *Adult Education Quarterly 34*(2), 85-96.

Bryam, A. (1988). *Quantity and quality in social research*. London: Unwin Hyman.

Carp, A., Peterson, R., & Roelfs, P. (1974). Adult learning interests and experiences. In K. P. Cross, J.R. Valley, & Associates, *Planning non-*

traditional programs: An analysis of the issues for postsecondary education. San Francisco: Jossey-Bass.

Coe, R. (1986). Teaching writing: The process approach, humanism, and the context of "crisis". A. Luke & K. Egan (Eds.), *Literacy, society, and schooling: A reader* (pp. 197-208). Cambridge, England: Cambridge University Press.

Collins, R. (1977). Some comparative principles of educational stratification. *Harvard Educational Review, 47*, 1.

Costa, P. T., & McCrae, R. R. (1980). Still stable after all these years: Personality as a key to some issues in adulthood and old age. *Life-Span Development and Behavior, 3*, 65-102.

Cross, K. P. (1981). *Adults as learners*. San Francisco: Jossey-Bass.

de Avila, M. (1983). Illiterate adults and readers: Their exchange system. *Adult Literacy and Basic Education, 7*(3), 117-128.

de Castell, S., Luke, A., & MacLennan. (1986). On defining literacy. In S. De Castell, A. Luke & K. Egan (Eds.), *Literacy, society, and schooling: A reader* (pp. 3-14). Cambridge, England: Cambridge University Press.

de Castell, S., & Luke, A. (1986). Models of literacy in North American schools: Social and historical conditions and consequences. In S. De Castell, A. Luke & K. Egan (Eds.), *Literacy, society, and schooling: A reader* (pp. 87-109). Cambridge, England: Cambridge University Press.

Fingeret, A. (1983). Social network: A new perspective on independence and illiterate adults. *Adult Education Quarterly, 33*, 133-145.

Fingeret, A. (1982) The illiterate underclass: Demythologizing an American Stigma. *Dissertation Abstracts International*, 43, 09A, p. 2856. (University Microfilms No. DEP83-01638).

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Seabury Press.

Fuchs, E., & Havighurst, R. (1972). *To live on this Earth: Indian education*. Albuquerque: University of New Mexico Press.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.

Giroux, H., & McLaren, P. (1987). Teacher education as a counter-public sphere: Notes towards a redefinition. In T. Popkewitz (Ed.), *Critical studies in teacher education: Its folklore, theory and practice* (pp. 266-297). London: The Falmer Press.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine de Gruyter.

Gooderham, P. N. (1987). Reference group theory and adult education. *Adult Education Quarterly, 37*(3), 140-151.

Gouldner, A. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161-178.

Graff, H. J. (1979). *The literacy myth: Literacy and social structure in the nineteenth-century city*. New York: Academic Press.

Heath, S. B. (1986). Critical factors in literacy development. In S. De Castell, A. Luke & K. Egan (Eds.), *Literacy, society, and schooling: A reader*. Cambridge, England: Cambridge University Press.

Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. Cambridge, England: Cambridge University Press.

Heath, S. B. (1980). The functions and uses of literacy. *Journal of Communication, 30*(1), 123-133.

Just, M., & Carpenter, P. (1987). *The psychology of reading and language comprehension*. Allyn & Bacon.

Kazemak, F. (1988). Women and adult literacy: Considering the other half of the house. *Lifelong Learning: An Omnibus of Practice and Research, 11*(4), pp. 23, 24, 15.

Keller, J. M. (1987). Strategies for stimulating the motivation to learn. *Performance and Instruction. 26*(8), 1-7.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. New York: Cambridge.

Krishnan, L. (1988). Recipient need and anticipation of reciprocity in prosocial exchange. *The Journal of Social Psychology, 128*(2), 223-231.

Lewis, L. (1985). Supporting adult students: The role of significant others. In G. Conti & R. Fellenz (Ed.), *Dialogue of lifelong learning in a democratic society* (pp. 93-97). Texas A&M University, College Station, TX.

Lincoln, Y. & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lyons, N. P. (1983). Two perspectives: On self, relationships, and morality. *Harvard Educational Review. 53*(2), 125-145.

Maddi, S. R. (1976). *Personality theories: A comparative analysis*. Homewood, IL: Dorsey Press.

McGill-Franzen, A. (1987). Failure to learn to read: Formulating a policy problem. *Reading Research Quarterly. 22*(4), 475-490.

Merton, R. (1957). *Social theory and social structure*. New York: The Free Press.

Mezirow, J, Darkenwald, G., & Knox, A. (1975).

Last gamble on education. Washington, D.C.: Adult Education Association of the USA.

Mikulecky. L. (1982). Job literacy: The relationship between school preparation and workplace actuality. *Reading Research Quarterly, 17*(3), 400-419.

Murdock, I. (1970). *The sovereignty of good*. Boston & London: Routledge & Kegan Paul.

Noddings, N. (1984). *Caring*. Berkeley, CA: University of California Press.

Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.

Rockhill, K. (1987). Gender, language and the politics of literacy. *British Journal of Sociology of Education, 8*(2), 153-167.

Rosow, J., & Zager, R. (1988). *Training: The competitive edge*. San Francisco: Jossey-Bass.

Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge, MA: Harvard University Press.

Smith, F. (1989). Overselling literacy. *Phi Delta Kappan, 70*(5), 353-359.

Taylor, S. J., & Bogdan, R. (1984). *Introduction to qualitative research methods*. New York: John Wiley & Sons.

Thompson, J. L. (1983). Adult education and the disadvantaged. *Convergence, 16*(2), 42-46.

Ungerleider, D. F. (1985). *Reading, writing and rage: The terrible price paid by victims of school failure*. Rolling Hills Estates, CA: Jalmar Press.

Winograd, P. (1988). Assessing learned helplessness in poor readers. *Topics in Language Disorders, 8*(3), 38-55.

Wlodkowski, R. J. (1986). *Enhancing adult motivation to learn*. San Francisco: Jossey-Bass.

Lifelong Learning in Livingston, Montana

John C. Shirk

Introduction

The Livingston study on lifelong learning developed out of field research conducted in Houston, Texas and Port Townsend, Washington. The Houston and Port Townsend research focused on adult learning, and information resources used by learners, and generated questions about community learning networks, the economic costs and benefits of formal and informal learning, motivations for learning, and learning providers. A Kellogg grant offered the opportunity to conduct a study that would address questions raised in the earlier studies.

The Livingston research was conducted in two parts. The first was designed to provide data about what respondents had learned in the previous twelve months, to whom or what they turned for information to facilitate their learning activities, how they rated the resources they used for their learning activities, why they initiated their learning activities, the economic costs and benefits of their learning activities, what they thought they might like to learn in the next twelve months, and to whom or what they would most likely turn to facilitate learning activities.

The second part designed to generate additional information about learning networks and learning providers. The learning providers were asked the following questions: What skills were they teaching? Why were they teaching? In what kinds of settings were they teaching? How long had they been teaching? Were they teaching skills they had learned in Livingston? Were they earning any income as a result of what they were teaching? And did they know of any other learning providers in Livingston?

Stratified random sampling using the telephone directory was employed to generate a cross-section of adult learners, and formal, informal, and serendipitous learning patterns. The sample generated one hundred names and addresses from which sixty residents of 48 homes agreed to participate. The data were then analyzed and sifted through Lewin's field theory (1935, 1951) to better understand the nature of adult learning in the context of community.

It must be noted at the outset that the researcher seeks to maintain confidentiality of all respondents. Names will not be used; occupations will.

Conceptual Base for the Study

Data gathering for this study relied on the methodology of field research as defined by the social scientists and as practiced by Allen Tough. The theories of Kurt Lewin, often referred to as "field theory" were used as a conceptual framework to assist in the interpretation of data collected. A brief presentation of these concepts is supplied below.

Field research refers to research that is conducted in the geographical and social settings in which people live and conduct their daily activities (Burgess, 1982). This approach was selected for the Livingston study, as well as for the author's previous studies in Houston and Port Townsend, for the following reasons. (a) A field approach permitted the researcher to observe a microcosm of community learning as evidenced and reported by individual respondents. (b) It enabled the researcher to enter a microcosm of the respondents' learning environments as evidenced by their economic and socio-psychological fields. (c) It also allowed the researcher to discover the macrocosm of community learning as evidenced by visible and invisible learning networks.

The limitations of field research were recognized to include the following. (a) Respondent bias that could relate to time, recall, socio-psychological forces impacting the life-space of a person being interviewed, and the ability of an individual to interact with the researcher or the interview instrument. (b) Researcher bias could include perception of and interpretation of an interviewee's environment and responses. (c) Sampling bias could include the time of year the research was conducted and use of the telephone directory to generate names. (d) Non-response bias could influence the study if certain types of people chose not to or could not participate in the study.

For the purpose of this study the adult learner was identified as any person over eighteen years of age who deliberately attempted to learn something new; who invested a minimum of seven hours planning, seeking information, and applying learned information; and who perceived the knowledge to be useful to him or her following the time of actual learning (Penland, 1977; Shirk, 1983; Tough, 1971). This allowed any change in cognitive structure, motivation, group belongingness, ideology, or voluntary control of body musculature to be included as learning (Lewin, 1951). Even incidental or serendipitous learning acquired accidentally, and without concomitant awareness of the learner was accepted (Cropley, 1977; Shirk, 1983).

Learning networks that have received institu-

tional authorization to exist to provide information and skills toward credits, licenses, and formal degrees were identified as visible learning networks. However, invisible learning networks were also discovered. These were informal learning networks that usually were anonymous, existed for varied timespans, and had learning providers who served as designated or self-appointed information linkages (Shirk, 1985). These learning providers were community designated or self-appointed information facilators who held their positions by reason of self-perceived, community acknowledged, or possessed knowledge and skills that may have been gained from life experiences in formal or informal educational settings.

Essential to the analysis of data was field theory. Field theory is "*probably best characterised as a method*: namely, a method *of analyzing causal* relations and of building scientific constructs....One of the basic statements of psychological field theory can be formulated as follows: Any behavior or any other change in a psychological field depends only upon the psychological field *at that time*" (Lewin, 1951).

Lewin's concept of the field included the totality of coexisting facts in a person's life which are conceived as mutually interdependent. Both positive or negative forces existed within that field that gave direction, strength, and point of application in the life-space of the individual (Lewin, 1951). The term valence was used to describe the critical properties of a force that attracted or repelled an individual and determined the direction of behavior (Lewin, 1935).

Lewin also spoke of the learning climate as the internal or external field forces impacted the life-space of an individual and which facilitated or impeded one's learning potential. This life-space included all the conscious or unconscious facts that impacted an individual at any given moment in time. Time perspective could expand or contract the life-space of an individual by the distance from future and past events that affect behavior (Lewin, 1951).

A person could change according to his region of freedom, that is "The determination of ... the regions that are accessible to him and of those regions that psychologically exist for the (person) but are inaccessible by reason of the social situation or because of the limitations of his own social, physical, and intellectual abilities" (Lewin, 1935). Thus, social locomotion became a physical or psychological move from one region to another that changes not only the momentary surroundings of a person but more or less the total setting (Lewin, 1951).

Lewin's concepts in field theory permitted the researcher to sift obtrusive and unobtrusive data through a theory that had some compatability with field research. The primary limitation to connecting field theory with field research was that the study was not designed to measure strict socio-psychological constructs. Nevertheless, those constructs were evidenced to some degree in a specific time span in the lives of the respondents and could encourage further research in lifelong learning.

Methodology

The Research Site

Due to its close proximity to the Kellogg Center at Montana State and its population of 6,994 (1980 census), Livingston, Montana was selected as the site for the study. Its poor economic plight was not considered to be disadvantageous to the study; rather, it could provide insight into the economic benefits of lifelong learning to a community.

Livingston is located near the northwest corner of Yellowstone National Park; it is heavily dependent on tourist and recreational traffic during the summer months. Other industries include forestry, ranching, service industries, and a down-sized railroad repair facility. It was the latter that recently had a major economic impact on the community.

Prior to 1986 the main repair shops of the Burlington Northern Railroad were located in Livingston. Burlington Northern was the product of a merger between the Burlington and Northern Pacific Railroads, a merger that raised images of a monoply in the minds of some of the citizens. To consolidate its own services, Burlington Northern officials informed the community of Livingston that its repair shops would be transferred out of state.

In 1986 Burlington Northern gave final notice to its employees and the town that it would close the Livingston shops; those who were eligible could accept a transfer to other system facilities or take early retirement. Those not eligible for either option, or who refused the options, were laid off. They either sought alternative employment, returned to school, or became unemployed. The erosion of community morale continued to echo in 1988.

Not all residents were disheartened by the passing of the town's major industry. Some business persons and local residents saw this as an opportunity for the community to shake off its image as a company town. It was into this setting that the researcher came to analyze the nature of lifelong learning in a small community.

Participants

As with the Houston and Port Townsend re-

search, a stratified random sample using the local telephone directory was employed to generate names of 100 prospective respondents. Letters of transmittal were forwarded to respondents, informing them that they had been selected to participate in a study on lifelong learning in a small town. The letters were followed up by telephone calls at which time interview appointments were scheduled. Forty-eight percent of the prospective respondents agreed to participate in the study.

In eleven cases husbands and wives were interviewed, some at the insistance of the respondents, others at the discretion of the researcher. One father and daughter, on separate days, were interviewed. In one instance the selected family had moved out of town; that family was replaced by the owner of the home who lived at the same address. In another abberation, a neighbor served as a replacement for a family that could be not contacted. A young man who served as a clerk at the researcher's base motel was interviewed and included in the study. Three community residents heard about the study and asked to be included; they were interviewed, but not included in the final results.

Fifty-two prospective respondents did not participate in the study. They either were not available during the interview period or refused to participate, claiming to be too elderly, recently widowed, recently retired, too busy, or unwilling to be bothered. Seven potential respondents who refused, or were unavailable to participate in the study, lived at an address that was discovered to be a high rise residence for the elderly. The manager of the complex knew each of the individuals; most were between 70 and 90 years old.

In spite of non-response bias, this method of selecting respondents enabled the researcher to interview a hetrogeneous population that ranged from 18 to 92 years old and included the highly educated and uneducated, employed professionals and unemployed laborers, able-bodied and disabled, high and low income earners, and people from "both sides of the tracks." This broad perspective of types of individuals resulted in a broad perspective of types of learning, including formal, informal, accidental, and incidental learning. It provided the researcher with insights into learning that Bookfield (1986) reported to be lacking in current adult learning research.

Snowball Sampling

As in Port Townsend, snowball sampling (Burgess, 1982) was used to generate names of community learning providers. Bulletin boards, newspapers, and word of mouth led to the discovery of adults who were assisting others to acquire new skills or knowledge. When a learning provider was identified, that person was asked to identify others in the community who might be assisting others to learn. Not only did this method permit the researcher to discover opportunities for learning in Livingston, it also led to the discovery of influential information linkages who had characteristics somewhat like of influential opinion leaders reported in Rogers and Shoemaker (1973).

The Interview Instrument

The interview instruments used in the Houston, Port Townsend, and Livingston studies both evolved and remained consistent in response to the analysis of the data; they were "field driven." The Houston study looked at the relevance of libraries to adults and their learning projects; it "drove" the researcher to look at the posssibility of the existence and nature of visible and invisible networks of learning. The Port Townsend study "drove" the researcher to look at the economic impact of learning on both the respondent and community. To maintain consistency in the studies a basic core of questions on adult learning was contained in each instrument.

Interviews were conducted in person in respondents' homes or other suitable locations. In order to ensure accuracy and permit the researcher to unobtrusively observe respondents' physical life-space, the interviews were tape recorded. Prior experience with the tape recorder in the Houston study supported this procedure. Livingston respondents did not object to the use of the instrument.

A distinct advantage to taping interviews included the ability of the researcher to transcribe, replay, and analyze the conversations.

As reported in the Houston study, a major drawback to using the tape recorder was the time and effort required to transcribe the interviews. Background noises and indistinct diction contributed to the difficulty of transcribing (Shirk, 1983).

Limitations of the Study

A critical issue that had been raised in the mind of the researcher in his studies was respondent bias. Was what respondents recalled during the interviews what actually happened? Or had their memories been influenced over time and by what had been transpiring in their immediate life-spaces?

Objectivity and detachment resulted in some consternation to the researcher in each of his studies; he was frequently reminded of his own potential for bias. At times he trusted his insticnts during the interview process. How accurate were his perceptions? If respondents recalled activities that

did not appropriately fit the researcher's definition of learning, he made it his perogative to exclude them from the report. Other times he included activities that clearly did not fit the definition of learning. Learning to tan snake hides in less than seven hours was included in the report. The existential impact of becoming a grandparent was reported and also included.

The researcher had also had to approach the undereducated and the highly educated from different perspectives. The perspectives of a surgeon and an unemployed welfare worker were not the same, even for one hundred dollars.

To establish rapport, the researcher tried to include information that shed light on such human drives as the need of the welfare recipient to survive, or the elderly illiterate to question her future, even to the next day, as well as the need of the businessperson to find fulfillment in successful business ventures or personal relationships.

Demographic Characteristics of Participants

Age and Gender

Sixty respondents participated in the study; 31 were male and 29 were female. Ages of respondents ranged from 18-92, with the average age being 48.43. The average age of males was 48.16; females 48.72.

As names and addresses were being generated, and interview appointments scheduled for the study, elderly sounding persons answered the phones more frequently than anticipated. If prospective respondents refused, or could could not be contacted, the researcher visited their residences unannounced. Several high rise retirement complexes for the elderly were discovered to exist in Livingston, leading the researcher to conclude that Livingston had a large elderly population.

Anecdotal remarks by the elderly provided the researcher with insights about their perceptions of themselves as learners. Their time perspectives were being influenced by the aging process. "I'm physically not up to it;" "I'm too old to be interested in any such a thing;" "I'm 81 and a little bit infirmed;" "I'm past that stage and I can't concentrate on learning;" "I'm too old, almost 90" were some of the responses. "I'm a widow and have no way to get anyplace," said a 79-year-old potential respondent who had suffered a stroke seven years earlier and had been widowed two years previously.

Educational Level

Education of respondents ranged from one person who never attended formal classes to a practicing surgeon. Eight adults had attained less than a ninth grade education; five completed between the ninth and eleventh grades; twenty-one completed high school; thirteen completed one to three years of college; five completed four years of college; and eight completed classwork beyond the bachelor degree.

Four of the respondents informed the researcher they could neither read nor write. Two of the four were, with some difficulty, teaching themselves to read. One of the four devised her own shorthand to compensate for lack of writing skills.

A number of the undereducated reported how they had "fallen through the cracks" of the educational system. An elderly respondent was raised on a ranch too distant from communities with public schools (she reported that her father could neither read nor write, nor did he see the need for his children to go to school). Another elderly woman had epilepsy as a young child; her mother removed her from her second grade classroom; this action resulted in the termination of her formal schooling. A middle-aged man, who reported being socially promoted in public schools, quit his formal schooling before completing the ninth grade; he was illiterate. An older unemployed laborer, who was wearing thick glasses at the time of the interview, reported that poor eyesight resulted in his being removed from school in the fifth grade

Occupational/Marital Status

Sixty-one percent of the residences included in the study were occupied by married couples; twelve percent were occupied by single residents; fourteen percent were occupied by widows or widowers; and twelve percent were occupied by divorced respondents.

Occupations of respondents ranged from a surgeon to the unemployed and included teachers, homemakers, newspaper reporter, street foreman, administrative aide, store owners, clerks, club manager/carpenter, grain elevator operator, students, nurses, paralegal secretary, air traffic controller, truck driver, small engine mechanic, senior companion, real estate broker, cafe owner, bookkeepers, computer programmer, and salesperson for a phone company. Two respondents were on disability retirement; others were retired from the railroad, water department, state legislature, air force, and farming.

Lifelong Learning and Field Forces

Positive and negative forces impacted the lifespace of respondents; internal and external, these forces, which were both internal and external, led the respondents to actively or passively engage in learning activities. External forces included acci-

dents, illnesses, business ventures, divorces, relocations, new relationships, etc. Internal forces (valences) included factors such as strength of will, response to change, reaction to adversity, sense of curiosity, level of cognitive thinking and ability to solve problems, sense of fatalism, and ability to set and work toward goals. In Lewinian terms, responses to field forces determined whether or not social locomation would occur, boundaries would change, or time perspective would expand or contract.

The researcher and respondents were restricted by time, place, and the psychological forces interacting in each of their life-spaces during the interview process. Yet in that one hour of interaction between researcher and respondents, life events were recalled and related to the researcher. Several respondents had prepared themselves for the interviews, others agreed to participate even though they did not comprehend the purpose of the study.

The following are extrapolations from the interviews.

Negative Forces and Boundary Modification

Boundary modification could be influenced by positive and negative forces in the lives of the respondents. The following are several cases in which respondents reacted to negative forces. In some instances respondents apparently withdrew into themselves. Others had initially resigned themselves to their situations, but were now looking for ways to improve their situations and themselves; others remained marginal; internal dissonance and external circumstances stymied their ability to expand the regions of their life-space.

1. Interview setting: a house trailer cluttered with unpacked moving boxes. The respondent was a 20-year-old male who, two months previously, had moved with his father, brother, and future step-mother from New Jersey to Montana. As a result of the move he left behind a supervisory position in an auto quick-service operation; it was a position that had given him a sense of satisfaction and accomplishment. Now he was unemployed, and from his perspective, with no immediate prospects for work. He was hesitant with his answers, had difficulty comprehending the meaning of learning as it pertained to the interview, and seemed to express a kind of fatalism about his current state of affairs.

In the middle of the interview the respondent's future step-mother came home. Shortly after she arrived she began to dominate the conversation, reminding the respondent that he was learning how to take care of a horse.

From his own perspective, the respondent's most meaningful learning experience in the previous year had been related to his promotion to manager at the auto service company. The new position gave him a sense of accomplishment.

When asked what he would like to learn "next year" he said he was thinking about taking classes in forestry at Montana State University. "You have to like what you're going for," he said.

Time seemingly collapsed for this respondent; he was at a point of regressing rather than advancing. Life did not appear to be open to him; he strained at the thought of going to college. Major changes were taking place in his life; he was having to "find himself" all over again.

2. Interview setting: a modest home on the "other side of the tracks." The home appeared to be comfortable; the inside of the screen-enclosed front porch was surrounded by hanging and sitting house plants.

The respondent was a 41-year-old divorced female parent who was still recouperating from a several-year-old automobile accident that resulted in her being in a coma for nearly a month. She had been a music major in college, but, one aftereffect of the accident was the loss of some of her motor and memory skills. She was now reteaching herself how to play the piano, taking dancing lessons, learning about house plants, communicating with people, and writing poetry. In addition, she was learning how to operate computers and be a paralegal secretary.

The respondent was both frustrated and challenged as she was relearning piano music that had been familiar to her. She had succeeded sufficiently to play for some public events, but still was not satisfied with her progress. As for learning how to use computers, she said: "I'm determined." This provided her with an opportunity to become more effective in her vocation as a paralegal secretary.

The respondent was also trying to improve her social skills. Expressed in one form or another by sixteen other respondents, interpersonal learning stressed the need their needs to more effectively relate to others. The researcher suspected that if successful, respondents involved in interpersonal learning would psychologically expand their freedom of movement by more effectively relating to their peers, colleagues, and families.

The respondent hoped to publish a short book of poetry in the coming year. She had several poems published, and took time to show several to the researcher. Now she wanted to publish a collection of her own writings.

3. Interview setting: a modest home in one of the newer subdivisions of Livingston. Neighbors had been selected to participate, but were not available. The respondent was a 40 year-old-male who had

been a truck driver; he was now on disability retirement due to a back injury. His wife was an administrative assistant at a local lending institution.

Therapy for his disability included golf lessons and learning cross country skiing on a machine he and his wife had purchased. He was also learning to type on his own; it was a skill he knew he would need if he expected to learn how to operate a computer and enroll in college to pursue a degree in accounting.

The back injury was a debilitating setback for the respondent. With the support of his wife, and his own determination, he was planning a new career. It would take time and would stretch him in ways he would not have pursued had it not been for the injury.

4. Interview setting: an older home on the "other side of the tracks." The kitchen had a "lived in," comfortable atmosphere and was furnished with hand-me-down furnishings. The radio was on throughout the interview, and turned to a local station. A nephew and his playmate came in and out of the kitchen several times. The basement of the house, now vacant,had been rented out to tennants.

The respondent was a 39-year-old divorced female who was replacing a prospective respondent who had been a tennant in her home; the tennant had recently moved. She had been laid off from her position at a travel agency during the past year. The negative impact of having been laid off had a big impact on the respondent. "This year has been such a disturbance, a wild year," she said. Had she not had apartments to rent in her home, the year would have been even less manageable.

To support herself, the respondent took a position as a waitress, something she had never tried before; after working several months, she decided she was not suited for this kind of employment. Now she was looking into the possibility of opening a "new age" book store in Livingston. She was also interested in developing new relationships with other people, spending some time traveling, taking college courses, and writing children's books.

Her learning activities in the past year included metaphysical spirituality, which was the result of a class on healing and visits with a sister who was teaching courses on the subject of new age spirituality. She was also taking a course in photography because she had been given an inexpensive camera. "It's my love," she said. The existential impact of becoming a grandmother also influenced her life-space.

To what extent was her interest in "new age" sparked by her having been laid off? Would she have considered the possibility of opening a bookstore had that not happened? The respondent seemed to have been groping as she looked toward what she might learn in the next year. Her life was still disorganized; the pieces had not come together at the time of the interview.

5. Interview setting: kitchen table of a home located in a lower income trailer park. The family had returned the day before from the funeral of the wife's father. Minutes before the respondent was interviewed, the interview with his wife had been completed in a living room surrounded by four or five large aquariums. The children, who had enthusiastically participated in the wife's interview, had gone outside to play, or remained in the livingroom. During the wife's interview the respondent barely made his presence known. Not saying anything, he merely stood at the doorway for a minute, was introduced, showed a big smile, then retreated into the kitchen.

The respondent was a 36-year-old man who drove trucks for a living. When first approached about the interview he was reluctant to participate; his wife coaxed him into sharing. He said little, except for the following. The respondent had been involved in two major learning experiences in the past year: his father-in-law's terminal illness, and tropical fish. He and his wife had spent more than $2,000 raising the fish; he was hoping to sell them in the Livingston area.

When the respondent was asked what he would like to learn "next year," he said he wanted to learn to read and write. Although his mother was literate, his father never learned to read or write. He had attended public school and had been socially promoted through the eighth grade. He quit school in the ninth grade. He knew that illiteracy was an obstacle to his self-improvement; it was a learning project he was considering to pursue next year.

When asked to whom he might turn to get help with reading and writing, he mentioned the local public library. He learned about that service when he took his children to get books for themselves. He also wanted to build a log cabin on property he and his wife owned.

"How," the researcher asked, "do you take care of the fish, and follow instructions, if you cannot read?" "I learn how to take care of them by watching them," he said. "If we need help we talk with a pet store owner in Bozeman."

Only when asked about his occupation, did the respondent show any assertiveness. "I'm a truck driver," he emphatically said. He knew he was limited in what he could do. In spite of his limitations he and his wife were pursuing an expensive hobby that required special skills and knowledge.

What role did the wife play in the life of the respondent? Was his mother a subconscious model for his wife? His mother and his wife could read and write; he and his father could not. The wife was the one who appeared to be more gregarious. She agreed to participate in the interview. She also encouraged the respondent to participate in the study. Was she encouraging him to learn how to read and write? The interview did not provide answers to these questions. It did appear that they supported each other.

6. Interview setting: a restraurant owned and managed by the respondent. The interview, starting at 10:15 A.M., was interrupted several times by customers greeting the respondent. The respondent was married, 32-years-old, and a native of Livingston. He did not come from a "railroad" family, which, according to him, severely restricted his chances of getting a job with the company after graduating from high school; he never did work for the railroad. Even at the time of the interview he recalled his sense of alienation at not being able to get employment with the railroad.

The respondent moved away from Livingston, managed restraurants, then, seven years ago, returned to open his own cafe. It had been a struggle; now he was experiencing success. The cafe had recently been remodeled, and he was now considering expanding.

The respondent moved away from Livingston, managed restraurants, then, seven years ago, returned to open his own cafe. It had been a struggle; now he was experiencing success. The cafe had recently been remodeled, and he was now considering expanding.

In the "last year" he made a concerted effort to be more efficient in business matters; be a better employer, learn to golf; use a VCR camera; become more community oriented; and visit his grandmother in San Antonio, Texas. The trip to San Antonio "filled a void in my life," he said. He was learning more about his roots.

Remembering his sense of alienation in high school, he now wanted to "make good" with his restraurant. It was a consuming drive. The researcher penned some notes to himself during the interview: "seemed to have the need to be liked, which conflicted with the need to succeed." This was evidenced by people coming in, slapping him on the back, calling out greetings. At the same time, however, he was carefully watching over the operation, giving suggestions, motioning employees to tables, etc. As the interview proceeded he voiced his need to become a better employer. The interview was finally moved to an area of the cafe that had less traffic flow.

This particular respondent could almost be categorized a "marginal man." In one sense he was succeeding in business; that did not suffice, for in another sense his past lack of acceptance seemed to have been strongly etched in his mind.

7. Interview setting: a modest, kempt, though somewhat meagerly furnished, apartment in a stable, middle-income part of town. Books and magazines were available in magazine racks and underneath a coffee table. The transmittal letter had been opened and was now on the coffee table (for the researcher to see?).

The respondent was a 53-year-old man who had recently been divorced. Other than a short conversation about his former wife, a school teacher in town, little was said about the divorce. A clerk, he was one of the few Burlington Northern employees who had been retained in Livingston.

The respondent's primary thrust throughout the interview was to emphasize and reemphasize the need to develop a positive attitude toward one's self and toward life in general. He had been pursuing this goal by participating in two extensive correspondence courses: an Earl Nightengale course on self-esteem, and a life study course on the Bible. "We have to get into our dreams," he said, "we have to set goals for ourselves. When there are no risks there are no challenges....On the road to success, one cannot fear being worse off. I must get my eye on the goal." He continued on this theme for more than an hour, resulting in the interview being interrupted and resumed the next day.

Other learning activities pursued by the respondent in the previous year included selling home improvement products, personal investments, and studying about diets and his health. His primary sources of information for these pursuits were at least ten magazine subscriptions.

In the next year the respondent wanted to learn more about selling, possibly purchasing his own franchise. He was aware that Burlington Northern might be transferring him to their Fort Worth offices, and he wanted to keep his mind open regarding his own qualifications and how to better develop them. "I have to be ready, give it 100%, and be willing to learn, if something should break loose," he said. "I'm successful in my own mind, I have a great attitude to face life. I'm ready to break through to something, knowing that I am a winner and feel good about myself."

As the researcher reflected on the interview with the respondent, he was reminded of the "lonely male syndrome," he had encountered in Port Townsend, Washington. Not familiar with what he

was observing, he had a hunch that this was some kind of male phenomena. He presented his findings to a Port Townsend nurse in the county health department; she confirmed the researcher's hunches (Shirk, 1985). The lonely male was approximately forty to sixty years old, middle income, most likely divorced, possibly retired. The lonely male seemed to have been living his life in an emotional vaccuum. He was doing, belonging, striving, yet something was missing. The home environment of the lonely male, no matter how furnished, seemed to have a sterility about it.

This respondent had gone through an "amicable" divorce. He was also one of the few who had survived the traumatic turmoil caused by the sudden departure of the Burlington Northern Railroad. Or had he? He could have had guilt feelings about being a survivor. Now he was attempting to fill the void in his life with "positive thinking." The boundaries in his life had been radically altered, now he was attempting to repair the damage to his own esteem by decisively altering what remained. He was "setting goals," "becoming a winner," entering into a "new relationship with God." He had friends; he regularly met for coffee at the local railroaders' cafe; he was forming a new religious group in town. Yet he appeared to be lonely. He appeared to be, at the moment, a "marginal man."

8. Other respondents experienced their own kinds of trauma. One elderly respondent was "conditioning herself to face life." As a young person, she had been in beauty contests; time was now passing her by. Other respondents were confronted with illnesses, either within themselves or their families. Several respondents saw family members die. They were confronted with negative forces that, at first, were too abstract or overwhelming to comprehend.

In some instances respondents found themselves having ambivilance toward the forces impacting their life-spaces. Reactions of the respondents could have been in response to the ambivilance, and without any clear sense of direction. For some, these kinds of responses were short-lived, for example, the young mother who experienced divorce. Eventually she entered therapy, took classes at Montana State University, and accepted responsibility of new employment. She was learning how to reimage herself in the light of a broken marriage. Therapy was enabling her to analyze the hurt and ambivilance. She was learning how to mentally and emotionally reposition herself, to actively and positively respond to her life-space. She had not yet "arrived." Her self-esteem was still fragile, but she was receiving help.

An underemployed and undereducated handyman had neither the skills nor resources to effectively make any major moves beyond ambivilance. He wanted full-time employment. He could not find any. His ambivilance led to frustration and fatalistic powerlessness. His "region of freedom of movement" was limited by his "social, physical, or intellectual abilities." With the current economic condition that existed in Livingston, hopes for his finding the kind of employment he thought he could perform were nil; his future looked dim.

For some respondents, family environments were not conducive to learning. A woman had a desire to learn how to play the family organ. The researcher later discovered that the instrument was located in the husband's combination den and office. It was off limits to her; he did not want her coming into his room and messing things up. He did have a picture of her, in her beauty contest days, prominently displayed on one wall.

An elderly respondent had never attended school. Now she was trying to learn to read using religous books and tapes. "my dad didn't go to school and didn't think we needed to either," she said.

Other respondents were hoping to expand their boundaries. New experiences led them to new relationships, new possibilities. As Lewin expressed it, they were experiencing locomotion, expanding their boundaries. They might not succeed, or they might discover they did not like the new territory; they were going to try to cope with themselves and their situations.

The above are a few examples in which respondents were faced with negative forces in their lives. They could either resign themselves to their situations or try to resolve them; either way the boundaries of their life-spaces were impacted and sometimes made more permanent. For some the struggles were not resolved at the time of the interviews. Others were attempting to initiate plans of action that might allow them to creatively respond to the negative forces. For some, the boundaries were drawing more tightly around them; life was closing in on them. They most likely would resign themselves to their current state of affairs. It was not what they wanted; it was where they were. A 68-year-old widow exemplified those for whom life seemed to be constricting. When asked if she would like to learn anything in the "next year," replied "If I'm here." Life was not sufficiently open for her to plan for the future.

For boundary modification to have been effected in the respondents' life-spaces, positive external forces had to have been supported with positive internal valences. Negative external forces had to have been offset by stronger internal forces of the

will. If, however, the deterrance of such social forces as class, prejudice, politics, etc., were stronger than positive forces or positive valences in the life-space of respondents, boundary modification or social locomotion could have been limited. Hollingshead's Elmtown's youth (1949) witnessed this social phenomena. Likewise, positive external forces could be offset by negative internal valences.

Positive Forces and Boundary Modification

Positive forces influencing the lives of respondents were also internal and external. External forces included supportive family environments, supportive work environments, opportune moments, luck, new relationships, promotions, and building on past successes. Internal forces included the will to succeed, the will to survive, the will to live for a new day, the will to make the best of any given situation. The following are several examples of respondents who were actively engaging their life-spaces with positive valences, and in the process, expanding their boundaries.

1. Interview setting: a sparingly provided kitchen in a rented apartment located on the margin of a lower income neighborhood. The respondent was a 29-year-old, single, self-employed woman who was having her first experience being an entrepreneur. An artist by education, she was in the process of opening a wholesale/retail store to sell products she had made. Her art training stimulated her color creativity; she was now experimenting with fiber reactive dyes, print making, and dye tying. She had not, however, been trained to be a business person.

Opening her own business exposed her to unanticipated conflicts of values. To be successful, she had to learn how to transcend her need to be accepted; she had to learn how to close sales; she had to learn how to be assertive.

She recalled an example of how she was learning to be assertive. She became her own consumer advocate for the repair of her automobile's transmission. This had been the first time she had carried something like this through to her own satisfaction.

An unexpected area in which she had been assertive was when she finally realized she had to do something about drug transactions taking place in her duplex. She finally "got the nerve" to report the transactions to her landlord, and have people removed. She was also learning how to be assertive in a relationship. Examining her people and codependence skills was now leading her into a another dimension with her male friend. She was now exploring the possibility of marriage.

In the past year she helped remodel her grandmother's house, including paper hanging. She also designed and built clothing racks for her business. She was discovering that working with dyes was improving her color sense; she was now experimenting with color. She had also developed an interest in the American west and the native Americans.

In the next twelve months the respondent wanted to continue to learn how to separate emotions from business, practice silk screening, learn how to argue better, take a story telling class, and develop a relationship with a "higher power."

The respondent was experiencing inner conflict as she was attempting to become a business person. Expanding her boundaries required the development of social and personal skills that had been unfamiliar to her. She had gained artistic skills that allowed her to critically explore and expand into new areas of thinking. Contemplating marriage was opening new possibilities. Learning to be comfortable with assertiveness was more of a struggle. As far as she was concerned, she had experienced several significant successes with assertiveness; that gave her a sense of satisfaction.

2. Interview setting: a motel office where the respondent was employed as a night clerk. The respondent was 18-years-old, had recently graduated from high school and was now earning money to attend college.

At one point in the interview the respondent was asked what major he would pursue in college. His answer was: "Business. My family was brought up in business, and I guess it is in my bloodline."

A number of respondents, some young, many older, were constrained by their sense of time. The elderly frequently responded to the question about learning with: "I'm too old to learn." Uncertainties were the time constraints confronting younger respondents.

This particular respondent did not exhibit time constraints. When asked about what he would like to learn "next year," he said:

> Actually I would like to learn as much as I can. It really doesn't matter what it is. I hope to go to college this winter; there's just numerous things. I'd like to learn any thing I can. It happens to be that whatever I learn happens. I don't go out and actually look for it, it usually happens. It just comes to you.
>
> Like the thing of the front desk, there was a job opening and I would make more money so I took it, and because of that I learned the night audit. And I was a maintenance personnel over at Paradise and because of that I learned apprenticeship. Things just happen to fall in place. I don' actually go out, I don't actually look to learn something. I'd like to go to college and be-

cause of that I'll be taking classes and learn things.

Other things he learned "last year" included working at a Kentucky Fried Chicken, taking German in high school, shopping for and buying a stereo, and tuning up his automobile.

Life was open to this respondent. He was not goal oriented. He did have family role models who had provided him with a sense of confidence, a willingness to venture. He was not sure where he was headed, but he was moving ahead with anticipation.

3. Interview setting: in the living room of an older, neatly kept, modest home that was located in a stable, older neighborhood. The respondent was a 68-year-old female house painter who had recently undergone surgery for replacement of both of her knee caps. She had been widowed for nearly eight years.

Active in senior citizen projects, the Red Cross, and other community activities, the respondent had lighthearted disdain for senior citizens who gave up on life. In the past year she had both knee caps replaced and had now returned to her house painting job. It was her attitude, she related, that allowed her to double the therapy exercizes following each of the operations. Learning about the knees, and having the operations performed had been her major learning activity in the past year.

The respondent's volunteering with the Red Cross and senior citizens center provided her with opportunities to be around and observe people; this had become one of her ongoing interests. She liked people.

When asked what she would like to learn next year, the respondent laughingly said: "I'd like to write a book about my experiences working with people." She also had a desire to learn how to quilt.

The positive forces in this respondent's life had been her willingness to face life head-on. Disabilities did not deter her; rather, they became the challenges that made her more determined to contribute to life around her.

4. Interview setting: a 7 A.M. breakfast appointment at a local restraurant that had been set at the respondent's home the previous evening. The home was located in one of the newer and more expensive Livingston subdivisions.

The respondent was a 50-year-old, married, farm and ranch real estate broker, who had recently suffered heavy losses in the financial market. He was slowly recovering. His occupation that required constant awareness of legalities and changes in the market place. Learning, he said, was a part of his life; it was something he probably got from his parents who had both been school teachers.

In the past year he learned how to use an office computer, and was now, with the help of his wife, putting his files into a national data base. Computerizing his data bank was a major effort that would streamline his service.

The respondent was in a line of work that required staying abreast of the latest developments in the field. In addition to reading current periodicals, journals, and attending conferences and seminars, he relied heavily on video and cassette tapes to support his information needs. His work required long hours on the road; listening to the cassette tapes was his way of "absorbing information" and keeping up with new regulations while traveling. When not on the road, he would use his free time to view video tapes that were available in the office library.

"Next year" he wanted to learn how to relax, golf, remember names, and keep up with the changes in his business. Not remembering names was embarrassing; it was something he had to do if he was going to increase his effectiveness as a real estate broker.

The respondent experienced major financial losses in the recent past. Those losses did not come without pain; he realized, however, that loss was part of the territory for anybody who wanted to be in real estate. He knew he had limitations; he was also seeking to improve himself. He remembered the good times in the business; they would come again. He had to hold the course.

5. Interview setting: the kitchen of a modest middle income home in a newer subdivision of Livingston. The father had been disabled and medically retired from the Burlington Northern Railroad. The respondent was 19-years-old, had graduated from high school one year ago, and was now working as a sales clerk in a western wear store.

When asked what she had learned in the past year, she opened with, "I've made decisions that are going to affect my future--investing, things like that." Working with the public and for her employer opened up a whole new career to her. She said "I love working with the public, I thrive on it; there is something new every day. The experiences I've had, the places I've gone...a lot of new opportunities opened to me. This is the year I came out of my shell; a year ago I never suspected I'd be doing the things I'm now doing. I used to be pretty quiet, on the shy side; now I'm doing a lot of things. As a result of this I can go into a lot of different fields. I've grown up in a year."

Now the respondent was thinking about taking classes in fashion and merchandizing at the university. She also worked part-time in a local art gallery.

The respondent had been treated as an adult by

her employer. One year ago she had been a high school student; now she was a young businessperson. She was asked by her employer to help make decisions about purchases, had been sent on buying trips, met with sales representatives, and, at times was entrusted with the day-to-day operation of the store. "It's nice that she gave me that responsibility; we work as a team. My employer also helped me set new goals for myself; she's good at that," she said.

When asked what she had learned the the past year, she listed the following vocational skills: management, marketing, working with the public, working with sales representatives, and learning about hats and fashions. In her personal life she was learning about needlework, the arts, personal investments, setting new goals for herself, developing a more mature relationship with her parents, and learning more about Livingston.

The respondent's family life was a significant area of learning: "my relationship with my parents has changed tremendously over the past two years. I have made some positive changes in my life." The researcher asked: "Who do you think changed, you or your parents?" "Oh me, I've matured," she said.

Learning about Livingston included personal observations about the changing economic climate and the loss of the railroad. With optimism she said, "but the town is coming back; in two or three years the town will be back on its feet." Part of her learning about Livingston included attending a two-day seminar about Livingston's future.

When asked what she would like to learn "next year" she talked about the need to develop additional management skills related to the business. In her personal life she had been influenced by the art gallery and now wanted to develop her own artistic skills. She also wanted to take voice lessons, learn more about herself and her capabilities, and learn how to more effectively handle her finances.

Although the respondent knew she had made giant strides in the past year, she was not taking those strides for granted. She knew her employer was her mentor and played a major role in her development. The positive impact of employment on her life-space allowed her to expand her boundaries. The self-confidence she gained allowed her to critically analyze herself, which in turn led to an improved relationship with her parents. She matured in one year and was anticipating the future; her time perspective was expanding, not contracting.

6. Interview setting: the kitchen of a sparsely furnished two-story home that was also the residence for a recently divorced daughter. A second home, this was where the family conducted their computerized accounting business. The respondent was 50-years-old, married, a self-taught computer programmer, and was now writing accounting programs for area loggers. His wife ran the programs and kept accounts for clients. The business had the trappings of a "Mom and Pop operated cottage industry."

When first asked about his formal education, the respondent said he had been a high school dropout. "No you're not," his wife answered, "you got your GED after you got out of the navy." When asked how he got into computer programming, he told how, as a child, he would tear apart and repair radios. After quitting school, he enlisted in the navy and attended electronics technician school. Following his discharge he was employed by the railroad as an electrician, pursuing this line of work until an on-the-job back injury forced him to take disability retirement.

It was during the recovery from his back injury that the respondent decided to buy a computer. "I was the first kid on the block to get one," he said. "I just liked the thought processes that it took. I just waded through it. I bought computer magazines, and If I ran up against something I couldn't understand, like linear regression, I went to computer stores to get assistance. You have to be very specific regarding goals."

In addition to custom programming, the respondent purchased a software system, was using cassette tapes to improve his guitar playing, and was taking a correspondence course in stock market analysis. He learned about the correspondence course from a mailing that came to his home. "Next year" he was hoping to learn about bookkeeping and accounting, continue with guitar lessons, take up woodworking as a craft, and study history and philosophy.

This respondent lived in a home in which books were frequently exchanged between his wife and her brother who lived in the mid-west. A "learning environment" simply pervaded the home. In spite of his "educational gaps," learning was a way of life for him. He was constantly pushing back boundaries. The unknown was not to be feared, nor did he appear to be driven to achieve. The unknown was there to be explored; exploring was second nature to him. That exploration was now moving him beyond the familiar electronic boundaries into the abstract field of philosophical thinking.

7. The preceeding cases have provided insight into growth and learning. Most of the respondents were not highly educated, they were motivated. Inner drive, curiosity, family influence, and the will to succeed were forces that enabled respondents to expand their boundaries.

Growth did not always come without struggle

and ambivilence; the respondents accepted the challenge to grow. They did not always have an interest in people; they did have interests. They did not always feel comfortable making decisions; they were not afraid to make decisions. They did not always set goals for themselves; some did. If they were to succeed they knew they had to be open and accept opportunities that came their way. They were risk takers. In spite of its obstacles, life was open to them.

Characteristics of Learners and Learning "Last Year"

Types of Learning Activities

Sixty respondents identified 304 learning activities that they had been involved with during the "past year," an average of 5.03 activities per person. The activities were grouped in nine categories: vocational, domestic, interpersonal, religious, medical, recreational, cultural, political, and other. They used an average of 3.08 learning resources for each activity, and pursued the experiences out of necessity, curiosity, chance, through an acquaintance, and in some instances realized after the fact that they had learned about something that was new to them (serendipitous learning).

The sixty learners identified learning in the workplace as the most common type of learning experience. It was prompted by promotions, transfers, lay-offs, new responsibilities, domestic complications such as divorce, or entrepreneurial challenge. Their workplace learning tended to be influenced by rapid changes in technology, information transfer, and economic instability, and usually provided greater economic benefits than costs to the learner: employers frequently payed for the training, employees were renumerated with pay raises, bonuses, and promotions.

Domestic learning activities were related to activities around the home: they provided the learners with ways to save money through do-it-yourself projects including gardening, upholstering, automotive repairs, raising pets, sewing, and like projects. These activities tended to be intimately related to the learners' life-space, and were usually conducted privately. Learning providers who assisted in these activities were likely to be or become close friends. Although learners experienced economic costs related to domestic learning, they also experienced economic gains: one woman bought and learned how to use a new sewing machine to custom tailor for the public; another woman recognized that her first garden was saving her money, but she could not say she had earned money as a result of it.

A surprising finding in economically depressed Livingston was the involvement in cultural learning activities expressed by respondents. Nearly fourteen percent of the declared learning activities included such diverse projects as studying Joseph Campbell and mythology, ancient Egypt, the American west, literature and creative writing, dance lessons, poetry, sculpture sitting, foreign languages, Henry VIII, musical instruments, art, theater, and world travel. For some learners cultural activities were carefully planned and organized; others became acquainted with their new found interests through friends or other influentials. The Discovery Channel was identified as a cultural learning resource by four learners including a school teacher and an elderly illiterate woman. The few learners who indicated they experienced a economic gains from cultural learning perceived the benefits to be minimal. In spite of the economic costs outweighing the benefits, learners perceived the personal enrichment to be worth these costs. Several community businesspeople concurred that activities in the community were making it possible for Livingston to move beyond some of the economic losses caused by the Burlington pull-out. This, they said, was particularly evident during winter months when art, theater, and other cultural groups played a more prominent role in the life of the community.

Recreational learning was pursued by learners for reasons in addition to relaxation. A surgeon learned to use a new bench saw in his cabinet making hobby; a banker tried to improve his golf game; others took up tieing flies or arts and crafts. One man learned the game of golf primarily to experience social locomotion; he wanted to learn how to play the game, but more important were the people he hoped to meet. It was in recreational learning that respondents experienced the greatest net cost related to learning. Some very expensive hobbies provided little economic gain. The real benefits was the satisfaction derived from learning a skill, something they had always wanted from developing new friendships, from proving to themselves they could do something new, or from the detachment the hobby provided from daily responsibilities.

Medical learning usually involved medical professionals who, though providing treatment, were not permitted into the intimate life-space of the learners; they were trusted, valued highly, but viewed with a sense of avoidance. Although some learners recognized that medical treatment enabled them to get back into the work force, as a whole, they did not perceive that the economic benefits came near to balancing the economic costs.

Interpersonal learning usually had as its goal tincreased adeptness in relating to others either in the workplace, home, or community. Whether striving for a sense of intimacy or improvement in self-esteem or recovering from broken relationships, such activities did requir personal risk and self-exposure. Learners were more likely to turn to professional counselors, the clergy, or support groups than do-it-yourself remedies. The economic benefits of interpersonal learning seldom outweighed the costs involved; however economic gains were often realized in the workplace because of better relationships with the public. Some of the benefits learners incurred, such as learning to better relate to family, could not be given a dollar value. In some instances, learners were still groping for more meaningful ways to relate to others.

Religious learning tended to create intimate bonds between learners and learning providers who were not professional clergy; however, some learners followed extremely introspective approaches and tended to look into themselves and their interpretations of religious literature to find satisfying answers. The intimate bonds created between learners and learning providers seemed to provide the learners with a sense of self-esteem and to authorizethe break through limitations such as illiteracy, as did an elderly woman who found meaning in the Jehovah's Witnesses. In a few instances learners seemed to display a wariness of organized religion and did not consult clergy who they viewed as suspect. Learners who included the clergy as learning providers usually gave them high ratings. Those learners who declared they had experienced economic costs related learning in the area of the religious did not perceive themselves benefitting economically. Yet, an unemployed homemaker did anticipate using her gained expertize in metaphysical spirituality to open a New Age Bookstore. As in the Houston and Port Townsend studies, most learners did not express an interest in political learning activities. One respondent, a businessperson, noted particularly the lack of involvement in political activities. In the short time since he established his business in town, he noted a lack of involvement at all levels of government and national politics.

Learning Resources

As in the researcher's previous studies, respondents were more satisfied with human than with non-human resources such as books and media. Yet books were frequently used as resources for learning even though they were perceived as less appropriate (see Table 1).

Resources for learning receiving the highest ratings were professionals. However, it was not the professionals to whom the learners first turned for information; friends and family were more likely to be considered. As Rogers and Shoemaker (1971) noted, the diffusion process is effected through human resources compatible with the respondents. If compatibility and accessibility existed between respondents and professionals, i.e., if professionals had been familiar figures within the life boundaries of the learners, they more likely would have been used in the information seeking process.

Compatible intimates who had access to the learners' life-space and had become established within their boundaries frequently included colleagues, friends, and family members; they supported the learners and seemed to add stability to the learners' life-space. At the same time, however, selecting only compatible intimates as learning providers occasionally resulted in less than adequate information and even contracted rather than expanded the learners' lifespace.

Professionals referred by intimates were more likely to be used in the information-seeking process. Family members, however, were not necessarily compatible intimates; family rivalry occasionally create negative forces that blocked learning.

Close friends or acquaintainces often provided the hub around which invisible networks of learning formed. Such invisible or non-public networks of learning displayed the following characteristics: they linked learners with learning providers; they were instigated equally by learners, by learning providers, by referents, or by chance; they seldom required a fee, they often exacted an emotional or psychological price from the learners. These invisible networks of learning convened in kitchens, libraries, sporting sites, churches, business establishments, and other locales fitting to the transfer of information. Involvement in invisible networks of learning sometimes lead learners to involvement in visible networks, including formal classes and institutional programs.

Several respondents preferred self-directed learning activities requiring minimal assistance from others. Problem solving was a personal challenge to be carried out alone for some such as the middle-aged computer programmer who consulted experts only when confronted with totally unfamiliar ideas. Others, such as the illiterate who was raising tropical fish, seemed to be use self-directed activities to prove that that they could succeed. Usually they had enough sense to seek help when things got out of control.

Some respondents found the leadership in formal classrooms most stimulating; it provided them with both the expert's input and the give-and-take

Table 1

Frequency of Use and Rating of Resources for Learning Activities "Last Year"[1]

Resource	Frequency			Rating	
	Use[2]	Percent	Rank	Rating[3]	Rank
Own self	145	47.69	1	3.77	10
Family	79	25.99	5	4.18	5
Own books/magazines	97	31.91	3	4.02	7
Books/magazines from friend	41	13.49	12	3.76	11
Books/magazines from libraries	68	22.37	6	3.53	15
Media, TV, radio, newspapers	47	15.46	10	3.55	14
Friends	94	30.92	4	3.95	9
Informal group	46	15.13	11	3.70	12
Clergy	17	5.59	14	4.24	4
Physician	21	6.91	13	4.29	2
Employer	47	15.46	10	3.57	13
Paid teacher	54	17.76	8	4.28	3
Public librarian	7	2.30	15	4.43	1
Businessperson	63	20.72	7	3.98	8
Other	110	36.18	2	4.05	6

[1]304 learning activities of 60 participants.
[2]Frequency of use of 936 resources.
[3]Average rating of resources: (1) No Satisfaction, (2) Little Satisfied, (3)Satisfied, (4) Much Satisfaction, and (5) Complete Satisfaction.

between colleagues and experts. Older learners for whom this was a first time experience talked about the anxiety caused by a strange and demanding learning environment: they were surprised they could keep up with their classmates. Others stated the informal group provided a greater opportunity for interchange of ideas. Being less structured encouraged immediate feedback: the upholstery and photography classes confirmed this notion. Similarly, the "buddy system" of learning was particularly useful in skill development, a trait confirmed in the Houston and Port Townsend studies.

On occasion learners became learning providers and in the process continued the formation of invisible networks of learning. A young female school teacher was learning to play new musical instruments, and in the process was sharing her interests with others. A railroad clerk who had been pursuing bible correspondence courses formed his own little discussion group in Livingston. A grain elevator operator who had participated in an archery refresher course was now assisting hunters who wanted to get their state licenses. A carpenter was using the buddy system to both learn and assist others to learn carpentry skills. Circumstances also determined the frame of mind respondents had toward their information resources. A middle-aged woman who had both hips replaced spoke of her need to have complete confidence in her doctor. A young mother used her past experience as a physician's receptionist to judge the quality of her new pediatrician. Even after the new doctor had found a skeletal deformity in her daughter, she withheld praise until she received a second opinion from her former employer.

In the information seeking process learners also turned to non-professional learning providers who had acquired informal titles that identified their areas of actual or self-proclaimed expertize. One respondent, who had been learning about canaries, repeatedly referred to "the bird lady" as her source of information. Others referred to store owners, employers, or informal groups for learning information. These learning providers acted as formal and informal opinion leaders or gatekeepers: they provided appropriate information or directed respondents to learning providers.

The use of modern technical resources for learning evolved significantly since the author's Houston and Port Townsend studies. In those

studies no reference was made to video cassette recorders, and little reference to home computers. Yet four years later a nurse spoke of purchasing a new sewing machine that included an eight hour instructional video; a banker used video cassettes to support his interest in tieing flies and golfing; a woman participated in a study of the sacraments at a local church where the lessons were supplemented with video tapes; and a real estate broker frequently watched video tapes to update his business acumen. The purchase of computers for use in the home and learning to use the computers in the work place was mentioned more than in the previous studies.

Motives for Learning

In attempting to analyze reasons learners gave for learning something new, the researcher was acutely aware that responses could have been jaded by time and recall. What really were the trigger events in the life-spaces of the learners that resulted in their learning something new? Was it, as some reported, a spur of the moment decision? Could there not have been, in some instances, latent desires that found opportune moments for expression?

A 60-year-old man reported an experience that led to learning patience. He was working in a hardwore store, when an elderly gentleman came in for a replacement part for a small engine. Could the respondent supply him with one? "I need the part number." he snapped. The gentleman could not provide a number at that moment. "Well go home and find out what the number is. Read your instruction manual," he said. The gentleman left, intimidated. Soon the respondent started thinking to himself: "What if someone treats me like that when I'm older, how will I feel?" In that snap moment, he said, "I learned patience. When the gentleman came back I readily helped him."

The respondent then went on to say: "Before I retired, I was in a business in which I had to make instant decisions. I lived and worked by instinct. If the light turned green, I'd be on the horn to the car in front of me. It was instinct. But, the incident with this gentleman was so complete that I couldn't believe myself. Just that quick, I got patience. I even told people at church about it. I couldn't believe it myself. Now if the light turnes green, I don't even lay on the horn for the car in front of me."

Was this reported transformation a sudden event? Had this been the first time the respondent experienced the need to be patient? Had there been other events in his life-space that day that pointed to the need to be patient? Could this need to be patient not have been a latent desire "whose time had come?"

Additional anecdotal remarks by learners about reasons for learning provided below. "It was the mighty urge," (a retired air force officer who had recently produced a play). "I just up and did it," (a computer programmer talking about playing the guitar). "It was very satisfying," (a computer programmer writing his own computer programs). "It gave me enjoyment," (a bank administrator who was learning to play racquetball). "It was for my sanity," a medically disabled railroad employee trying to divert his attention by learning how to tie flies). "My wife talked me into it," (a city employee who participated in community positive thinking seminars). "I did it for my grandson," (an office administrator who was learning about oragami). "It stirs up my interests and I can talk to my neighbors about it," (a retired city employee who, by watchng Crossfire, sharpened his interest in politics). "It was something I wanted to do," (a retired high school teacher who had organized a state religious convention). "It was a fluke, I just didn't know there was treatment," (an artist who, as a result of opening her own business, saw the need to deal with codependence and improve her people skills). "It was for inner-life change," (a railroad clerk who was pursuing a life study course on the Bible). "Its an awakening within yourself which strikes constantly at various times," (an unemployed homemaker who was studying metaphysical spirituality). "It gave me a sense of satisfaction as people saw what I was doing on my own," (a nurse who recently took classes in furniture upholstery). "A doctor encouraged me to learn to read," (an elderly illiterate woman who had spent years on the rodeo circuit and was now learning to read).

Economic Costs and Benefits of Learning

As noted earlier, data gathered in the Livingston study were self-reported, including economic information, and as such could have been under or overstated. When conducting interviews in the homes, learners sometimes stopped to show the author what they were talking about by showing their pets, hobbies, construction projects, often with a sense of pride and self-accomplishment, and sometimes with a sense of frustration. However, their displays of accomplishments ed not verify economic costs or benefits; their estimates were accepted at their word.

It was also difficult to separate the cost of living itself from other aspects of the learning process. For example, the family who spent $8,000 remodeling their home did not give learning the same priority as did learners who enrolled in formal classes or those

Table 2

Frequency of Economic Costs and Benefits of Learning Activities by Types of Learning

Type of Learning	None	$1-$50	$51-$100	$101-$150	Over $151
		Economic Costs			
Vocational	52	9	4	1	28
Domestic	13	10	4	4	14
Cultural	10	12	3	3	14
Recreational	2	18	5	3	13
Medical	7	5	1	1	8
Interpersonal	6	6	3	0	4
Religious	8	3	3	0	1
Political	3	0	1	0	0
Other	9	9	3	0	1
Total	110	72	27	12	83
		Economic Benefits			
Vocational	38	2	5	4	45
Domestic	33	2	0	0	10
Cultural	32	3	1	0	6
Recreational	38	2	0	0	1
Medical	21	0	0	1	0
Interpersonal	12	2	0	0	5
Religious	15	0	0	0	0
Political	4	0	0	0	0
Other	18	2	0	0	2
Total	211	13	6	5	69

who purchased equipment with the express purpose of learning how to use it. Yet in the minds of that family learning did take place, and was an integral part of the total project. When they reflected on what they had done, they were proud both of what had been accomplished and what they had learned.

Respondents were asked how much they spent on each of their learning projects, and what economic benefits may have resulted from the process. Anticipating responses not much higher than $100, the author put $150 or more as the upper response category. As the interview proceeded it became apparent that learners had become involved in activities which ranged from no economic outlays to thousands of dollars. Big ticket items included travel; purchasing and learning to operate computers, cameras and videocameras, sewing machines, and automobiles; enrolling in formal educational classes or recreational activities; developing hobbies; remodeling houses; selecting personal or business investments; and updating professional skills.

It was not uncommon to find respondents who pursued several learning activities that totaled as much as $2,000 in costs for the year. They purchased pets, got involved in cultural activities, pursued special interests, and had to contend with medical problems. These unanticipated phenomena caused the author to come to the conclusion that, in spite of the fact that some respondents did not incur any economic costs related to their learning activities, the average learner spent at least $500 a year for his or her learning activities (see Table 2).

Learners also experienced economic benefits from what they had learned: promotions, new responsibilities, marketing new products, investment returns, and selling what they had made resulted in real financial returns. A middle-aged woman, at the instance of her husband, showed the author sweatshirts she had learned to decorate and was now selling for a minimal profit. A newspaper reporter received pay raises in spite of the short time he had been with the local newspaper. A restraurant manager considered his community involvement to be profitable to the business. A banking assistant used her new calligraphy skills for economic gain.

Several examples of non-economic gains were also reported. An elderly woman described how she bartered paintings for other goods. Improvement in

interpersonal skills were seen as ways to become better parents and spouses or more effective in public. Several respondents found learning to be a way to stretch their intellectual capacities: three said they were trying to learn how to read in order to comprehend what they constantly saw in print. For others, learning provided some hope to survive in a world in which they felt powerless.

Learning "Next Year"

When asked, "Would you like to learn something new next year?" 53 respondents identified 167 potential activities, an average of 3.15 activities per person. Several learners found the question difficult to answer. A bookkeeper who had pursued more than ten new activities in the previous year said, "Whatever comes my way." Several older people found their time perspective too constricted to consider specific learning tasks. One widow said, "If I'm still around." Some younger learners also found it difficult to identify new learning activities; they seemed so oriented to the present that projecting into the future proved to be an unfamiliar exercize.

When responses of learners were categorized into types of learning, 29% anticipated cultural activities; 26% vocational; 18% recreational; 12% domestic; 4% interpersonal; 4% religious; 1% other; and less than one percent political.

Examples of anticipated cultural learning activities included travel to Japan, Spain, and North Africa; learning German and Spanish; oil painting, silk screening, philosophy, song writing, and sculpturing; constructing crucifixes out of nails; learning about new authors; earning a high school diploma, learning to read and write; writing childrens' novels; and producing movies.

Examples of anticipated vocational learning activities included pursuing a military career in journalism; developing office, bookkeeping, and computer skills; attending veterinarian or nursing schools; becoming an officer in a bank; opening a catalog sales business; doing tax returns; and remembering names. In several instances these skills were part of career changes as with the newspaper editor who had enlisted in the Army, and the veterinarian assistant who had been accepted into veterinarian school. These changes would make a drastic impact on the learners and their families.

Examples of anticipated recreational learning activities included woodworking and building doll houses; learning to fly; working with opal gems and making pistol grips out of agate; quilting, weaving, and rug braiding; golf, marlin fishing, boatsmanship, and rafting; and stained glass and tole painting. Most of these activities could be learned in the home or local surroundings and were viewed as not creating family hardships. Examples of anticipated domestic learning activities included adding an upstairs room to a home, replacing siding on a home, and building a log cabin; possibly moving to another part of the United States; tailoring; gardening and canning; and money matters. Other types of projected activities included parenting and child development; separating emotions from business and learning more about people; bible study, becoming more involved in church, relating with a higher power, Reiki, and becoming a good witness for Jehovah; emotional stability and learning about chemical abuse; learning how to write grants for the city council; becoming a tour guide; and joining a Rotary Club.

When asked to whom they would turn for information related to their new learning activities the respondents most frequently mentioned paid teachers followed in order by books and magazines from libraries, themselves, friends, their own books and magazines, family, unrepresented resources, business persons, public librarians, employers, books and magazines from friends, informal groups, the media, clergy, and physicians. This differed considerably from resources used in the previous year.

A surprising element in the study was the frequency with which respondents indicated they would use libraries as resources for their new learning activities. Those same resources had been ranked second to lowest for their previous activities. One possible reason for this perceived use could be the improvement in library technology and interlibrary loan networks. At the same time, however, librarians, who received the highest rating as learning resources in previous activities, were ranked ninth as resources for new learning activities. Even though they had not been frequently identified as learning providers, it appears librarians were being indirectly considered in the information seeking process.

Professionals such as teachers, clergy, physicians, and librarians are generally associated with visible networks of learning. Except for paid teachers, learners did not perceive themselves increasing their use of professionals. They continued to see themselves relying on friends, family, and colleagues; that is, learning providers who were more likely to be found in invisible networks of learning.

Summary of Learner Characteristics

In summary, the learning styles of respondents were similar to those found in the Houston and Port Townsend studies (Shirk, 1983, 1985). Most adults learned something new in the reported year. For

those working outside the home, their vocations tended to dominate what they learned. Learners tended to exhibit dominant learning styles, but it was not uncommon to see digression from those styles. Styles tended to be influenced residually by positive and negative experiences during early childhood, including quality of health, parental influence (being turned-on or off to schooling by skill limits of their parents), schooling experiences, and their level of interest such as in music and reading, in tinkering with electronic and mechanical gadgets, and in entrepreneural activities.

Their involvement in new learning activities usually could be attributed to necessity, influential others, curiosity, chance, or serendipity. They themselves were their most frequently resource for learning; i.e., sifting through data, flying by the seats of their pants, or using the trial and error method. Their immediate families (mates, parents, siblings) were frequently mentioned as resources for learning, both positive and negative. As a result of relying on family and friends they were more likely to participate in invisible than visible learning networks. They were less likely to consult professionals when trying to learn something new but consistently rated professionals such as physicians, clergy, public librarians, and paid teachers as excellent resources for learning. They anticipated seeking out paid teachers to learn something new next year. Although strongly attracted to books and magazines as resources for learning, they consistently rated these resources lowest.

In some instances learners expended large sums of money to accomplish particular purposes, at least part of which was learning. Some only recognized after the fact they had gained unexpected skills and insights. In other instances they established goals and paid large sums of money for the express purpose of learning something new. This kind of goal-oriented learning usually but not always occurred in formal classrooms.

The economic transactions involved in formal or informal learning definitely had an economic impact on Livingston. A conservative estimate is that the average learner spent at least $500 in the process of learning something new. In some instances skills gained made it possible for the learner to become more proficient in the workplace or sell products. This in turn had an economic impact on the community.

Economic benefits from learning usually occurred in the workplace. While vocational learning usually paid the highest returns for dollars expended, recreational learning provided the lowest economic return. Here, social and psychological benefits were assummed to outweigh the costs of learning. Some kinds of domestic and cultural learning learning required large financial outlays, and learners considered themselves to have experienced modest economic benefits from their investments; however, as with recreational learning, economic benefits did not outweigh the costs.

Learning Providers and Networks of Learning

To uncover characteristics of learning providers in Livingston, a brief interview instrument was designed to gather the following information from learning providers: subjects taught, size of groups, settings in which taught, time having taught, motivation to begin teaching, where teaching skills were acquired, economic benefits gained from teaching, and were familiarity with other visible or invisible networks of learning in Livingston.

Mr. Jeff Shada, a graduate student at Montana State University and a resident of Livingston, conducted this phase of the study. While conducting these interviews, Shada noted that developing a stable list of learning providers within the invisible networks could be frustrating. Invisible networks tend to be of short duration and difficult to identify. When a great enough demand were to be made for skills taught thrugh invisible networks they occasionally became formalized. At other times, existing formal network attempted to meet such heightened interest in the community.

Thirty learning providers, who indicated they had taught at last one subject in the past year, were identified and interviewed. Those interviewed represented a small portion of learning activities occurring in Livingston and provided a better picture of visible than invisible learning networks.

Approximately 39% of the learning providers had been teaching their subjects less than five years, 40% between five and ten years, and 21% more than ten years. Many who had been teaching did so for a short time and then quit. Newcomers to town, for example, used their skills to become involved and accepted. Shada noted "Due to the Burlington pull-out Livingston has had out-migration of much of its population; this transition caused a loss of some of the familiar learning providers. In the meantime the town became recognized as an ideal area to relocate; retirees, artists and movie stars began migrating to the area. Those who became teachers and learning providers appeared to be well-educated and were offering a wider variety of learning opportunities within the community."

Artists made their presence felt in the community by providing opportunities for involvement in the arts. That was reflected in what respondents in

the first part of the study thought they might like to learn in the coming year. Local history became a popular theme in Livingston. A self-made historian, informally designated by many to be the "gatekeeper" to Livingston's history, established a museum and provided many opportunities for learning about the community. The conversion of the local railroad depot into a cultural museum made it possible for its director to encourage interest in local and state history. The two museums became focal points for studying about the West, a fact attested to by a number of respondents in the first part of the study.

Learning providers not only supported community values; at times they challenged those values. An entrepreneur selected to be in the study of learners was also a learning provider. He personally questioned the community's values toward public education, and in particular criticized the failure of the community to replace a facility that had been destroyed by fire. Voices such as his had the potential for injecting new attitudes toward the politics of public education.

When asked about money earned from teaching adults, 32% said it was their sole source of income; 17% indicated they did not earn anything from what they were teaching. Shada observed that some learning providers who own their own businesses supplemented their incomes by selling materials and supplies to learners. Size of groups taught ranged from one-on-one to 150. Tutoring was most frequently mentioned for such activities as health, personal hygiene, self-improvement, and pre-natal care; adult basic education; domestic interests including geneology, survival and home life skills, western history and culture, job search skills, financial planning, sewing, and social support; crafts including pine-needle basket weaving, candle making, spinning, weaving, potter; and agricultural services. In some instances these activities were taught in larger groups depending on circumstances and demand.

Learning providers included members of government such as county health, extension, and other county and state service personnel. Some entrepreneurs linked classes with their businesses as did a crafts person who taught candle making, spinning, weaving, and pottery in his shop. Less visible were individuals such as the woman who taught pine-needle weaving in her home.

Some learning activities were regularly scheduled, others met irregularly by consensus of learning providers and learners. The county health department was a government agency that irregularly scheduled home visits to provide tutoring for clients. Most frequently learning providers reported teaching in their stores or places of business; others taught in their homes, local library, museums, school buildings, and government offices. Unusual settings included a mountain house, a motor inn, outdoors, streamside, an athletic club, a fire hall, and a local gallery. Learning providers tended to operate in familiar settings that had readily available resources but which were non-threatening to learners. Demand could determine whether facilities remained low-key and invisible to the community at large, or were more visible. A sporting goods store, widely known for its flies and fly tieing was prominantly located on the main road through town; it overshadowed fly tieing tutoring that occurred in homes.

In summary, the following observations pertain to learning providers in Livingston: learning providers taught a wide range of skills and at various levels of proficiency, and usually experienced some form of economic benefit from what they were teaching. For some, it provided their sole source of income. As learning providers they contributed to the economic health of Livingston by creating desires to learn and and demand for materials to support those desires. If learning providers were merchants, this helped support their businesses. Learning providers usually supported traditional community values through the skills they were teaching. In some instances, however, they questioned and challenged those values.

Learning providers usually taught in their places of business, otherwise they used their homes or community nodes as places to meet. Types of settings usually determined the size of groups taught. They usually taught one-to-one, however some groups had as many as 150 participants.

If learning providers were in medical or wellness centers their goals were to make it possible for learners to become physically or socially functional. The woman who had gone through a dibilating divorce was a case in point. Her loss of self-esteem was devestating; mental health personnel provided a caring network that made it possible for her to reimage herself and become productive in both the home and the work force. If learning providers were employers their goals were to make it possible for employees to become more proficient. If they were in financial institutions their goals were to enable their clients to become fiscally secure.

Finally, learning providers came from all walks of life. In some instances they intended to be and were visible to the community. When so, they usually had been providing their services for extended periods of time. In other instances they were parts of those invisible networks that exist in every com-

munity. Then they usually functioned for short durations, and did not aspire to expand their services. If they were new to the community and had skills they wanted to teach, then they deliberately attempted to penetrate the visible networks of learning. However, whether part of the visible or invisible networks of learning, these learning providers tended to make positive contributions to the economic, cultural, and social life of the community,

Conclusion

The purpose of this study was to investigate the nature of learning in a small community and its economic implications to the learners, learning providers, and the community. The researcher was surprised by respondents' responses to the costs and benefits of their learning activties. The limitations of the questions designed to measure the costs and benefits of their learning activities resulted in very conservative estimates. Were the study to be replicated it would be strongly recommended that actual costs and benefits be sought.

It is also recommended that additional research be conducted in the social/psychological costs and benefits of learning. Thibaut and Kelley (1967) discussed the costs and rewards of developing meaningful relationships (dyads) between two individuals, and it would seem plausible to transfer their theories into the dynamics of lifelong learning.

Finally, a strong case can be made for creating an environment for lifelong learning in any community. Encouraging inquiring minds at an early age should be the goal not only of educational institutions: every arena of community life, homes, churches, businesses, libraries, museums, theaters, fire halls, hospitals, government agencies, and service organizations should make concerted efforts to become part of this process. Not only will the social, cultural, political, and psychological climates be strengthened but economic health of the community will be enhanced as well.

Bibliography

Brookfield, S. D. (1987). *Understanding and facilitating adult learning*. San Francisco: Jossey-Bass.

Cartwright, D. (Ed.). (1951). *Field theory in social science: Selected theoretical papers*. New York: Harper and Brothers.

Cross, K. P. (1981). *Adults as learners*. San Francisco: Jossey-Bass.

Lewin, K. (1935) *A dynamic theory of personality: Selected papers*. New York: McGraw-Hill.

Merriam, S. B. (1989). Contributions of qualitative research to adult education. *Adult Education Quarterly, 39*, 161-168.

Mey, H. (1965) *Field-theory: A study of its application in the social sciences*. New York: St. Martin's Press.

Schneider, D. J. (1976). *Social psychology*. Reading, MA.

Shirk, J. C. *The invisible network of learning in a small community (a brief comparative analysis of two adult learning studies)*. (ERIC Document Reproduction Service No. ED259094).

Shirk, J. C. (1984). Relevance attributed to urban public libraries by adult learners: A case study and content analysis of 81 interviews (Doctoral dissertation, Texas A&M University, 1983). *Dissertation Abstracts International*.